



## CHAPTER 2

## CHAPTER 2

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## CHAPTER 2

### PLAN ALTERNATIVES

#### INTRODUCTION

This chapter contains a description of the actions and prescriptions proposed to resolve each issue identified in Chapter 1 under the four management alternatives for the El Malpais Planning Area. Four alternatives are presented, each of which has a different blend and balance of resource allocations, uses, and protection. All are based on input from the El Malpais interdisciplinary planning team, other Bureau of Land Management (BLM) staff, and the concerns and issues expressed by the public during the scoping process for this plan. Actions proposed are discussed under "Planned Actions for Each Alternative," which forms the third and major part of the chapter.

Some existing actions, decisions and guidelines have been brought forward into this plan and would be continued no matter which alternative was selected. These have effectively met public needs and/or resolved issues, so the BLM will continue to use them in the Planning Area. They are described in the next section, "Continuing Management Guidance and Actions Common to All Alternatives." The public land, resources, and programs not affected by the resolution of the issues in these alternatives will be managed as outlined in this section and the *Rio Puerco Resource Management Plan* (RMP--USDI, BLM 1986).

All four alternatives comply with the requirements defined in Public Law (P.L.) 100-225 that the NCA be managed to protect geological, archeological, ecological, cultural, scenic, scientific, and wilderness resources, in a manner consistent with the Federal Land Management and Policy Act of 1976 (FLPMA). Together with the Continuing Management Guidance and Actions Common to All Alternatives, each alternative forms a separate and feasible land-use plan.

Also included at chapter's end are discussions of four alternatives the BLM has considered but not analyzed in this plan. The impacts of each alternative analyzed are discussed in Chapter 4.

#### CONTINUING MANAGEMENT GUIDANCE & ACTIONS COMMON TO ALL ALTERNATIVES

This section describes the program objectives, resource management guidance, and activities that will continue in the Planning Area regardless of the alternative selected under this plan. These are based on BLM policy, the "Continuing Management Guidance" of the *Rio Puerco Resource Management Plan*, and the special management constraints specified in P.L. 100-225. Management guidance for resource programs is found in laws, Executive Orders, regulations, manuals and instruction memoranda from the BLM Washington Office, the BLM New Mexico State Office, and the BLM Albuquerque Field Office.

#### Recreation

##### Program Goal

The BLM's goal for this program is to ensure the continued availability of quality outdoor recreational opportunities and experiences that are not readily available from other sources. Recreational use and capital investment in facilities are managed to protect the health and safety of visitors; protect natural, cultural, and other resource values; stimulate public enjoyment of public land; provide for universal access (including for physically challenged visitors); and to the extent possible, resolve user conflicts. Management priority is given to undeveloped areas experiencing resource damage, user conflicts, or threatening visitor safety; areas where use exceeds current capacity; unique and/or scenic attractions adjoining heavily traveled highways; and preservation and protection of natural and cultural resources.

##### Management Common to All Alternatives

Recreation programs are managed according to multiple use principles unless otherwise specified by law (e.g., FLPMA) or BLM policy. In areas formally recognized by the Congress, such as wilderness and

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National Conservation Areas, providing recreational opportunities requires more intensive management and investment.

The BLM uses the Recreation Opportunity Spectrum (ROS) to inventory, plan for, and administer outdoor recreation resources on public land. A general description of the six ROS classes is contained in Appendix C. ROS objectives for the NCA are those indicated in the Rio Puerco RMP. Table 2-6 under Alternative A displays land acreage for each of the three ROS classes in the Planning Area by alternative.

For any project proposed in the Planning Area, the BLM will continue to evaluate recreation resources on a case-by-case basis as part of project-level planning. Such evaluation will consider the compliance of the action with current management plans, the significance of the proposed project, and the sensitivity of recreation resources in the affected area. Stipulations will be attached as appropriate to ensure compatibility of projects with recreation management objectives.

Hunting and trapping are permitted in the Planning Area and must comply with all applicable New Mexico Department of Game and Fish regulations. Patrols (Operation Respect) will continue during hunting/trapping seasons.

Monitoring will be used to protect recreation resources and prevent their degradation. Traffic and trail counters will be used to measure visitor use. The BLM uses the monitoring system, Limits of Acceptable Change (LAC), to determine the need to modify use allocation or management. Certain limits have already been established for the Planning Area, and these will be used to trigger actions (management modifications) called for in this plan (refer to Appendix D).

***The BLM would inspect and conduct a program of preventive and rehabilitative maintenance of recreation related facilities to the extent resources permit to provide a safe, sanitary, and aesthetically pleasing environment for visitors and employees. Through inspection the BLM would identify and remove hazards or give warning of their presence. BLM personnel, volunteers, cooperative management agreements, contracts to***

***the private sector and other means as necessary would be utilized to maintain BLM facilities to ensure an appropriate standard of care is provided. The Bureau would continually evaluate its recreation related facilities through inspection to determine if they should be reconstructed, expanded, transferred, closed or removed based on costs, resource protection, health and safety and their capability of meeting current and future uses and demands.***

### **Recreation Partnerships**

The BLM will continue to cooperate with the National Park Service (NPS) in developing, constructing, and operating the Northwest New Mexico Information Center near Grants, New Mexico. The agency will also continue to produce its own interpretive materials, and will maintain its partnership with the Public Lands Interpretive Association (formerly the Southwest Natural and Cultural Heritage Association) or another natural history organization to provide maps and other publications for visitors.

As required by P.L. 100-225, the BLM will identify sites in the NCA that are appropriate for addition to the Pueblo Heritage Trail (formerly the Masau Trail) and inform the NPS of them. To assist with its goals of public outreach, interpretation, and environmental education, the BLM will develop and maintain cooperative agreements and contacts with teaching institutes, research institutes, and non-profit organizations.

The BLM will continue to support and cooperate with Los Amigos del Malpais, a volunteer association that has been assisting with managing El Malpais since 1987. Several group members are trained as hike leaders, and others regularly staff the Ranger Station.

### **Special Recreation Permits**

Under all alternatives, the BLM will continue to issue special recreation permits to qualified outfitters and guides when requested, following the permitting process, which includes an Environmental Assessment (EA). Permits issued will be consistent with resource protection objectives, and set up to reduce user conflicts. Examples of activities sometimes covered under these permits are guided and/or outfitted hunting, mountain biking events, pack-animal trekking, commercial photography or other

commercial outfitting. These include commercial, competitive and organized uses of public lands. However, no motorcycle race or other off-road vehicle competitive event will be allowed, as it would not be compatible with the intent of P.L. 100-225.

### **Management of Existing Facilities**

Recreational facilities and actions already completed at the Ranger Station and La Ventana Natural Arch will continue to be managed for intensive use, with emphasis on completing approved projects. For example, the BLM will develop a ½-mile-long (round trip) interpretive/orientation nature trail at the Ranger Station (USDI, BLM 1990). The agency will also continue to provide interpretive programs, exhibits and demonstrations at this facility. At the arch, the BLM will develop and maintain interpretive wayside exhibits that emphasize wilderness, wilderness use ethics, and area geology.

### **Trails**

All trail designs will incorporate accommodations, *where practicable*, for universal access. Construction and location of trail treadways will take into consideration and avoid, if possible, conflicts with private waters, private lands, sensitive wildlife and plant habitats, and sensitive cultural resource sites. *As individual trails are sited for development and where further NEPA compliance is necessary, all required site-specific studies and clearances would be done and a determination would be made concerning the environmental consequences of the proposal.*

The BLM and other agencies are developing a treadway for the Continental Divide National Scenic Trail (CDNST). The corridor for the trail was established in a Plan and EA developed jointly by the U. S. Forest Service (USFS) and the BLM (USDA, FS 1992, 1993).

### **Cave Management**

The BLM will conduct an inventory of cave (lava tube) resources and continue to manage caves in accordance with the Federal Cave Resources Protection Act of 1988 and related BLM policy. Significant cave locations will not be made public, and any actions that could adversely affect significant caves will be

deferred or denied. The BLM will undertake appropriate protection measures as needed.

### **Visual Resource Management**

**Program Goal.** The BLM seeks to manage public lands to protect or enhance the quality of visual (scenic) values.

**Management Guidance.** The Visual Resource Management (VRM) system is the tool for identifying areas that warrant special management attention to protect scenic values and prevent irreparable damage to them. Visual values will be identified through the VRM inventory guidance in BLM Manual Section 8410. The Contrast Rating System identified in BLM Manual Section 8431 will provide the means to evaluate proposed projects in the Planning Area and determine whether they conform with approved VRM objectives.

Interim VRM Classes will be established where a project is proposed and no RMP-approved VRM class objectives exist, including on Planning Area lands acquired after 1986. The agency will establish these interim classes using procedures identified in BLM Manual H-8410-1. The classes will remain in effect until VRM objectives are assigned when this plan is approved.

**Management Common to All Alternatives.** The BLM will administer visual resources in the Planning Area according to the objectives for each VRM class established through the land use planning process. The agency will continue to seek to acquire a scenic or conservation easement along federal, state and county roads passing through the Planning Area to prevent the views along these roads from being obstructed or degraded by developments. (Refer to Appendix E for description of each of the four BLM VRM Classes and management objectives.)

VRM Class I is assigned to Congressionally designated wilderness to maintain its existing scenic values. VRM Class II is assigned to all lands under wilderness review until they have been released from further review or designated as wilderness. Classes II, III, IV will be assigned to other areas based on a combination of scenic quality, sensitivity level, and distance zones, and on management decisions based on the RMP or directed by policy.

**Monitoring.** The BLM's Visual Contrast Rating

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System (Handbook H-8431-1) will be used to monitor potential visual impacts of non-BLM- and BLM-initiated projects and activities to ensure they are within acceptable limits. Through the RMP amend-ment and maintenance process, the BLM will maintain the inventory of visual values. Staff from each program involved in resource development work will be responsible to monitor the impacts on visual resources to ensure the changes are within acceptable limits.

### **Interpretation**

Interpretive objectives will be developed for each resource whose management can be assisted through such visitor education efforts. Some proposed objectives are listed below by program; these are not all-inclusive nor final.

- Promote a positive land ethic to visitors, informing them of the importance of using Leave No Trace and Tread Lightly recreational skills. Safety information is paramount. (Recreation)
- Wilderness has special values, and is set aside to protect them while allowing visitors to experience them. (Wilderness)
- Using surface waters can cause health problems, camping near surface waters can pollute them, and visitors should respect owners' rights to privately owned water sources. (Soil, Water & Air)
- Visitors should be informed of the importance of dead and living wildlife trees, dead and down trees and logs, and wetlands to wildlife; the disturbance caused by human-wildlife interaction; and hunting and trapping opportunities and requirements on public lands in the Planning Area. (Wildlife)
- Livestock grazing is a legal activity in the Planning Area, and it is important to maintain and protect fences, waters, gates and other range improvements. (Rangeland Management)
- Vegetative manipulation plays a part in conserving our public lands, including fire and fuelwood harvesting. (Vegetation) Visitors should be

informed of significant geologic features and the physical processes that produced them. (Geology)

- Cultural resources are important in understanding local history, especially for local American Indians, so sites should not be disturbed. Under the Archeological Resources Protection Act (ARPA), monetary rewards may be offered for information leading to the arrest and conviction of violators. (Cultural Resources & American Indian Practices)

### **Access & Transportation**

#### **Program Goals**

This program seeks to provide adequate access to meet the needs of all users, including those with physical challenges, to BLM facilities and resources, while reducing conflicts between users and preventing damage to natural resources. The agency designates all public lands as open, limited, or closed to motorized vehicle use, and determines whether restrictions are needed to manage nonmotorized uses (e.g., hiking, mountain biking, horseback riding).

#### **Management Guidance**

Management of motorized access to and across public lands is directed by Executive Order 11644, as amended by Executive Orders 11989 and 12608. Guidance to enact these Executive Orders is provided in BLM Manuals 8342, 8300, H-9114-1 and Titles 8340 and 8364 of the Code of Federal Regulations (CFR). The New Mexico Roads Policy [Instruction Memorandum (IM) NM-95-031] provides direction for constructing, maintaining, rehabilitating, abandoning and closing roads under BLM jurisdiction. Additional New Mexico guidance is provided through IM NM-95-083 (Transportation and Access Management) and IM NM-94-098 (Off-Highway Vehicle Management). Nonmotorized uses are controlled through 43 CFR 1600 and restricted under 43 CFR 8364.1.

***Criteria to be considered when designating vehicle routes as summarized from IM-NM-95-083 are: adjacent resource sensitivity and use, purpose and need for route, manageability, duplication, maintainability, hazards, land ownership and trespass, destination, reasonable and adequate access to***

*destination, adjacent land management objectives, user conflicts, and existing route designations.*

The BLM has identified motor vehicle routes of travel in a 1996 survey. Any new routes in the Planning Area created by management action or land acquisition will be designated through this plan or an activity-level plan amendment.

#### **Management Common to All Alternatives**

In accordance with P.L. 100-225, the American Indian people recognized as using the NCA are ensured nonexclusive access for traditional uses and cultural purposes. Such access must be consistent with the American Indian Religious Freedom Act and the Wilderness Act.

Existing state, county, and private roads with valid rights-of-ways will remain open. The BLM will work with these entities, the NPS, USFS and private individuals on a case-by-case basis to build, realign, upgrade and rehabilitate roads that lie within the Planning Area or access the National Monument through the Planning Area. The 18.4 miles of arterial vehicle routes identified in the 1996 inventory will remain open for use by the public, except when they are closed by natural occurrences or in emergencies (i.e., to protect resource values, promote the safety of all users, or minimize conflicts among various users).

Non-commercial, non-motorized and non-mechanized forms of access (e.g., backpacking, hiking, walking and horseback riding) will continue. Acquired land will be managed for motor vehicle use in the same manner as adjacent land with the same designation.

#### **Monitoring**

Monitoring will be done with a frequency based on the level of use, as well as resource and safety concerns. The BLM will gather information to ensure compliance with area and route designations, identify the need to modify these designations, provide and maintain adequate motorized and non-motorized access, protect resource conditions, and initiate emergency limitations or closures.

**If monitoring shows that transportation use is causing or will cause adverse effects on resources beyond acceptable**

**limits, is putting the safety of users at risk, or is allowing significant user conflicts to occur beyond acceptable limits, corrective actions will be taken.**

#### **Wilderness**

##### **Program Goals**

Through this program, the BLM identifies lands with wilderness characteristics, and recommends for designation those on which wilderness is the most appropriate land use. To preserve wilderness character as the Congress has directed, the BLM bases its wilderness management on principles of improvement and non-degradation. Under these principles, the intent is to prevent degradation of natural conditions, opportunities for solitude or primitive recreation, and special features located within the area; and to improve conditions where possible.

Four standard management goals established by the BLM for designated wilderness are as follows.

- Provide for the long-term protection and preservation of the area's wilderness character under the principle of non-degradation. Manage the area's natural condition; opportunities for solitude or primitive and unconfined types of recreation; and any features of ecological, scientific, educational, scenic, or historical value present so they remain unimpaired.
- Manage the area so visitors can use and enjoy it, but only in a way that leaves it unimpaired for the future. The wilderness resource is dominant in all management decisions in which a choice must be made between preservation of wilderness and visitor use.
- Manage the area using the minimum tools, equipment, and structures needed to successfully, safely, and economically accomplish tasks while least degrading wilderness values, temporarily or permanently. Preserve spontaneity of use and as much freedom from regulation as possible.
- Manage the nonconforming but accepted uses allowed by the Wilderness Act and subsequent laws in a way that prevents unnecessary or undue degradation of the area's wilderness character.

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Nonconforming uses are the exception rather than the rule; emphasis is placed on maintaining wilderness character.

### Management Guidance

Wilderness is managed according to the provisions of the Wilderness Act, as amended; FLPMA; BLM Manuals 8560, H-8560-1, and 8561; New Mexico BLM Manual Supplement 8100/8560; the BLM's Wilderness Management Regulations (43 CFR 8560); and the specific directives contained within P.L. 100-225.

For the Chain of Craters WSA and additions to the Cebolla Wilderness, supporting analyses to determine wilderness suitability will meet the requirements of the BLM's Wilderness Study Policy (1982). To provide a basis for the Congress to determine whether lands should be added to the National Wilderness Pre-servation System, each area under wilderness review is being analyzed for its values, resources and uses.

### Management Common to All Alternatives

As recognized in P.L. 100-225, the Cebolla and West Malpais Wildernesses will remain as part of the Planning Area. The Chain of Craters WSA will be managed under the BLM's *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (USDI, BLM 1995) to prevent impairment of its values until the Congress decides on its suitability.

If the Congress decided not to designate the lands under review as wilderness and released them from further consideration, the Interim Management Policy would cease to apply. The released lands would be managed under the appropriate RMP or plan amendment.

If the Congress designated all or a portion of the Chain of Craters or any other suitable lands as wilderness, they would be managed under the El Malpais Plan and the guidance identified above. If the designated area could not be incorporated under the El Malpais Plan or an existing RMP, the BLM would develop a site-specific management plan.

Until the Congress decides on the BLM's recommendation, the lands contiguous to the Cebolla Wilderness that are found to be suitable for designation will be managed under the Interim Management Policy, with an

exception for mining. Existing and new mining operations under the 1872 Mining Law will be regulated under 43 CFR 3802 only to prevent unnecessary and undue degradation of the lands, not impairment of wilderness suitability. Those lands found to be non-suitable for wilderness designation will be released from interim management after approval of the El Malpais Plan.

All activities in designated wilderness will be carried out in conformance with the mandates of FLPMA, the Wilderness Act, and P.L. 100-225. Hunting and trapping will be allowed to continue under applicable state laws and regulations. Livestock grazing operations established at the time the Cebolla and West Malpais Wildernesses were designated will continue, subject to certain restrictions. Visual resources within designated wilderness will be managed under VRM Class I objectives.

The use of motorized vehicles and mechanical transport will be prohibited, except in emergency situations and as permitted by law for mining, livestock grazing, and private and state land access. Access consistent with the Wilderness Act will be allowed for traditional and cultural religious practices by American Indians. On request, the BLM will temporarily close the smallest practicable area for the minimum period of time needed to accommodate such religious activities.

Boundary adjustments of designated wilderness will be made only through legislation. To enable easier identification of WSA and wilderness boundaries, the BLM will mark them with signs.

The BLM will seek to acquire all private surface lands and subsurface (mineral) interests within wilderness. Higher priority will be given to acquiring lands that are undeveloped, or those on which mineral development threatens the area's wilderness character. Once acquired, these lands will be managed as wilderness. Acquired subsurface interests within the existing NCA boundary will be withdrawn from the mining and mineral leasing laws, and from disposal under the public land laws. If an owner of private mineral interests within wilderness wishes to develop them, the BLM will work to provide reasonable access and development opportunities with the briefest impacts on wilderness character.

### Monitoring

Monitoring of lands under wilderness review is guided



by the Interim Management Policy (BLM Handbook H-8550-1). This monitoring is done at least once a month when the areas are accessible by the public to ensure compliance, and to gather data on use and condition. Non-degradation of biophysical and social conditions is achieved through the Limit of Acceptable Change (LAC) management system and the VRM system. If needed because of potential use activities or resource conflicts, or to help detect changes in wilderness conditions and opportunities, monitoring may be done more frequently. All authorized and unauthorized actions within a wilderness or study area are recorded; when needed, the BLM establishes a case file.

Specific conditions for monitoring authorized projects are identified when each proposal is evaluated and authorized. Monitoring procedures and schedules for range improvement maintenance are identified in the Range Improvement Maintenance (RIM) Plans for the two wildernesses.

#### **American Indian Uses & Traditional Cultural Practices**

##### **Program Objectives**

The BLM seeks to consider the effects its actions may have on American Indian uses and traditional practices, and to minimize those effects.

##### **Management Common to All Alternatives**

A number of laws and regulations require close consultation between the BLM and American Indian tribes with interests in lands administered by the agency. These include the American Indian Religious Freedom Act (AIRFA), the Archaeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and the Religious Freedom Restoration Act. P.L. 100-225 underscores these responsibilities by its emphasis on traditional cultural practices.

Under these laws, several processes require formal consultation with American Indian tribes. One example is the ongoing consultation required by NAGPRA regarding repatriation of burials, grave goods, and objects of cultural heritage taken from public lands over the years. Any activity that requires a permit under ARPA on Albuquerque Field Office lands also triggers a formal

consultation with potentially interested tribes.

For the most part, traditional cultural practices within the Planning Area are private matters of concern only to the tribes and individuals who are directly involved. It is therefore not appropriate for the BLM to develop alternative management actions specifically related to traditional cultural practices. However, this issue is an important consideration in formulating alternatives for other issues and in analyzing impacts that could result from implementing the alternatives.

For routine activities, the BLM relies on public participation in its land use planning process as an initial screen to identify areas and issues of particular concern to American Indian tribes. After broad land use plans such as the RMP and this plan have been completed, more specific activity plans or proposals for particular projects are evaluated through an environmental analysis process mandated by the National Environmental Policy Act.

The BLM also prepares an annual RMP Update that lists projects anticipated in the coming year. This update is sent to a broad mailing list that includes the Acoma, Laguna, and Zuni Pueblos, as well as the Ramah Navajo Chapter. For all except minor projects, the BLM sends a scoping letter to these American Indian groups 30 days in advance of any project-specific analysis, and after all analyses have been completed, sends copies to the groups.

The BLM attempts to maintain effective informal lines of communication through frequent interaction with the Pueblo tribes and Navajo chapters who have expressed a strong interest in management of the Planning Area. The objective is to encourage communication while still recognizing the need for privacy in many situations. The agency responds when these groups express concerns.

#### **Cultural Resources**

##### **Program Goals**

This program is established to protect archeological, historical, and sociocultural properties, and to provide for their use as allocated through land use planning.

##### **Management Common to All Alternatives**

Federal laws such as the National Historic Preservation Act (NHPA) of 1966, the Archeological and

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Historic Preservation Act of 1974, ARPA (1979), AIRFA (1978), and FLPMA (1976) provide for the protection and management of cultural resources. P.L. 100-225 establishes protection of archeological and scientific resources as one of the principal purposes of the NCA, placing special emphasis on preservation and long-term scientific use of archeological resources.

### **Use Allocation**

BLM Supplemental Program Guidance for Land Resources (Manual 1623.1) requires that RMPs include management objectives for all cultural resources known or likely to occur in the Planning Area. At the activity plan (or Cultural Resource Management Plan) level, cultural resources are allocated to certain uses. The three categories established for management objectives and six categories established for use allocation are shown in Table 2-1. (The terms themselves are defined in the Glossary.) Under any alternative, cultural resources that meet the definition of an "Isolated Manifestation" will be allocated to the "Discharged Use" category after they have been adequately documented. Otherwise, the allocation of different types of cultural resources varies among the four alternatives.

### **Compliance with the National Historic Preservation Act**

Before any surface-disturbing or other activity that could affect cultural resources, the BLM routinely conducts an intensive (Class III) inventory to ensure that important resources are not inadvertently damaged. The agency then completes administrative steps required by NHPA, including consultations with the New Mexico State Historic Preservation Officer. These measures will remain in effect under any alternative proposed in this plan.

P.L. 100-225 places special emphasis on preserving cultural resources, so projects within the NCA that could affect these resources are generally held to a higher standard than projects outside the NCA. Under any alternative, if a question is raised about the appropriate level of inventory, the significance of resources that might be affected, or the potential impact of a proposed action, the BLM will use more cautious and conservative practices.

### **Inventory & Baseline Documentation**

The BLM conducts cultural resource inventories at

four levels of intensity (Class I, II, and III, as well as reconnaissance level--refer to the Glossary). Inventory usually consists of inspecting the ground surface for evidence of past human use, and documenting whatever remains are found. In most cases this documentation allows the BLM to evaluate the significance of the property, identify sources of deterioration, and describe the current condition of the property.

In this plan, the alternatives vary in terms of the amount and kinds of inventory proposed in the Planning Area, and the circumstances under which inventories would be conducted. However, these activities and maintenance of the records they generate will continue in one form or another under any alternative.

### **Permits & Scientific Investigations**

To qualified individuals and organizations employing them, the BLM issues permits that authorize various types of cultural resource investigations. Subject to certain restrictions and requirements, the most common permits authorize surveys and minor testing needed to determine whether subsurface archeological remains are present. Typically these are state-wide permits. Under any alternative, the BLM will continue to issue these permits within the Planning Area.

Permits that authorize the collection of artifacts, formal archeological testing, or more intensive investigations are issued under ARPA. As part of the permitting process, detailed information about the proposed activities, curation arrangements, and consultations with local American Indians are required. Some of the alternatives in this plan would allow continued issuance of ARPA permits under certain circumstances, while under other alternatives, activities requiring these permits would be greatly restricted.

TABLE 2-1

**CULTURAL RESOURCE MANAGEMENT OBJECTIVES  
AND USE ALLOCATIONS**

Management Objective	Use Category
Information Potential	Scientific, Management
Public Values	Sociocultural, Public
Conservation	Conserved for Future
(None)	Discharged

### **Patrol & Surveillance**

Enforcement is accomplished largely by BLM Rangers, who patrol back-country areas, maintaining a presence and looking for violation of ARPA and other acts that protect public lands. Rangers have usually had training specific to ARPA, interact closely with cultural resource specialists to become aware of areas that contain sensitive cultural resources, and exchange information about areas of past or ongoing vandalism. BLM cultural resource specialists and volunteers also visit sites and sensitive areas on a regular basis. These activities, referred to as "patrol and surveillance," will continue under any alternative.

### **Monitoring**

The BLM monitors the condition of cultural resources at two different levels of intensity. At the lowest level, these resources are formally recorded and their present condition documented. This documentation then serves as the basis for evaluating the property and assigning it to a use category. It also provides baseline information against which the future condition of the resources can be compared. At this level no time period is specified for follow-up inspection. Comparisons between baseline condition and current condition are made when a change is suspected.

For a handful of especially important and/or vulnerable sites, the BLM conducts a more formal and intensive program of photo-monitoring. At these sites a series of standardized photographs is taken from defined locations at set intervals, typically once a year. These photographs document any changes in physical appearance of the sites. This level of monitoring is more expensive and

time-consuming and has only been implemented for a small number of Planning Area sites, including the Dittert Site, Oak Tree Ruin, and Arroyo Ruin.

### **Wildlife Habitat**

#### **Program Goals**

The BLM wildlife program focuses on habitats for terrestrial, aquatic, and special-status species (including threatened and endangered), and on rare or representative habitats or ecosystems. These habitats are managed to maintain or enhance the desired conditions that support the variety of wildlife species using the Planning Area. BLM staff members identify opportunities to maintain, improve, and expand wildlife habitats on public lands consistent with other consumptive and non-consumptive uses. They also identify and manage priority species and habitats (including rare and representative habitats, plant communities, and biological diversity).

The agency has a broad interest in managing the habitat of all wildlife as part of its overall multiple use program outlined in *Fish and Wildlife 2000* (a national planning and policy document for wildlife management into the year 2000--USDI, BLM 1988). New Mexico BLM has developed a version of this document that outlines specific objectives in managing the wildlife program statewide (USDI, BLM 1989). Other federal laws and policies that direct the BLM to improve the management of habitat to meet wildlife needs include FLPMA, the Endangered Species Act (ESA--1973 as amended), the Public Rangelands Improvement Act (1978, as amended), BLM Manual Section 6840, and program policy emphasizing Fish and Wildlife 2000 practices and biological diversity.

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The Albuquerque Field Office's wildlife habitat management program is also influenced by various memoranda of understanding and cooperative agreements.

### **Management Common to All Alternatives**

The BLM's coordination with the New Mexico Department of Game and Fish (NMDG&F), the U.S. Fish and Wildlife Service (FWS) and other federal, state, and local agencies is an important part of managing wildlife habitats within the Planning Area and will continue under any alternative selected.

### **Habitat Management Plans & Special Designations**

The BLM has developed an activity-level Habitat Management Plan (HMP) to enhance wildlife habitats in a large portion of the Planning Area, primarily for deer, antelope, turkey and Abert's squirrel. The *El Malpais Wildlife Habitat Management Plan* (USDI, BLM 1981) contains goals, objectives, and planned management actions, and is revised to satisfy changes in law, policy, and RMP decisions. Additional HMPs may be developed and other special designations identified for priority habitats where appropriate (e.g., Research Natural Areas).

### **Habitat Maintenance, Improvement & Expansion**

All range and watershed improvements will continue to be designed to achieve range, watershed and wildlife objectives for maintaining, improving or enhancing habitats, particularly for priority species. This includes location and design of waters and vegetative manipulation projects.

All properly functioning springs and associated riparian/wetland habitats on BLM-administered lands will be maintained at that level (USDI, BLM 1993; 1994). Those features in the Nonfunctional or Functional--At Risk categories will be managed to improve them to the Properly Functioning Condition category (refer to the Glossary). The BLM will maintain or improve these features either by using livestock exclosures, or by implementing grazing

management practices to maintain and/or improve them to properly functioning condition.

In accordance with BLM fence standards, new fences will be designed to allow for wildlife passage. Any existing fences that block wildlife movements will be modified. Wildlife escape ramps will be installed in all new and existing water tanks or troughs within the Planning Area.

Existing wildlife projects will be properly maintained (refer to Table 3-10 in Chapter 3). Any project not working as intended will be evaluated to determine if it is still needed as originally designed. All needed projects will be modified to work.

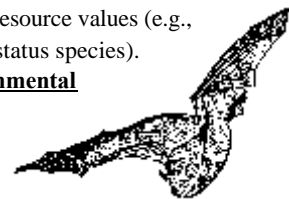
By scheduling use/non-use in critical wildlife areas during the appropriate season and to the greatest extent possible, the BLM will design and implement new livestock grazing systems to protect wildlife habitats (e.g., antelope winter range). New roads or trails will not be built into sensitive wildlife habitats, and those in other areas will be designed whenever feasible to direct visitors away from sensitive areas. The BLM may close roads or trails permanently or seasonally where problems exist or are expected to occur within sensitive wildlife areas.

Raptor protection will be improved by requiring all new powerlines to be built to "electrocution-proof" specifications (Olendorff, *et al.* 1981). To avoid potential collisions with powerlines by migrating birds, the BLM will incorporate mitigating measures as identified by the Avian Power Line Interaction Committee (1994) into all new powerlines where applicable. Any existing lines that are identified as causing electrocution and/or collision problems may also be modified where feasible.

Animal damage control activities on public lands within the Planning Area are guided by the Master Memorandum of Understanding between the Animal and Plant Health Inspection Service, Animal Damage Control (APHIS-ADC) and the BLM (USDA, APHIS 1995). The APHIS-ADC conducts animal damage control activities on BLM-administered lands, while the BLM identifies any special concerns for other resource values (e.g., health and safety, special-status species).

### **Inventory & Environmental Analysis**

The BLM  
Albuquerque Field Office maintains an



inventory of wildlife habitat and species occurrence for use in land use planning, habitat management, and multiple use decisions. These inventories identify important areas used by many species for breeding, migration, cover, resting and feeding, such as forests, wildlife snags, playas, wetlands, perennial springs and streams, raptor nesting areas, prairie dog towns, and sensitive use areas (for antelope fawning or elk calving, for example).

The agency reviews and analyzes all management actions in the Planning Area to determine whether they could affect wildlife (including special-status species) and/or their habitats. Also considered are impacts to habitat improvement projects, and compatibility with the NMDG&F comprehensive wildlife plan and population goals. Before the BLM authorizes activities in sensitive wildlife habitats (e.g., winter ranges, raptor nesting areas, fawning areas) staff members consider how to avoid or minimize disturbances.

### **Monitoring**

Wildlife habitat monitoring follows BLM Manual 6600. In addition, the BLM follows recommendations in the text, *Inventory and Monitoring of Wildlife Habitat* (Cooperrider, et al. 1986) when designing inventory and monitoring efforts. In monitoring condition and trend on key/sensitive wildlife use areas, wildlife staff coordinate with range and watershed staff. Water quality monitoring of natural springs used by wildlife is coordinated with the soil, air, and watershed staff. All existing wildlife projects (e.g., water developments, wildlife exclosures) are monitored regularly to determine any maintenance needs.

### **Threatened, Endangered & Other Special-Status Species**

#### **Program Goal**

The goal of this program is to protect and/or enhance the habitats of threatened, endangered and other special-status species and to ensure their continued existence in the Planning Area. Special-status species are plants and animals that fall into one of five groups, including those: listed as endangered or threatened under the Endangered Species Act (ESA); proposed for listing as endangered or threatened under the ESA; candidate species (formerly Category 1 species); species of concern (formerly Category

2 species), designated by the BLM State Director as sensitive; or listed by the state government as endangered or threatened (state listed).

BLM policy is to ensure the implementation of the ESA, as amended, and FLPMA. The agency is committed to comply with the ESA, other applicable laws, regulations, BLM policies and manual requirements.

The BLM is conducting informal consultation with the FWS under Section 7 of the ESA, which is anticipated to be completed by early 1999 and will determine if formal consultation on any specific species or habitat is needed. Seven species in the Planning Area are listed as threatened or endangered (the black-footed ferret, American peregrine falcon, Arctic peregrine falcon, bald eagle, Mexican spotted owl, Southwestern willow flycatcher and Zuni fleabane), one is proposed to be listed as threatened (puzzle sunflower), and one is listed as a candidate (mountain plover). These are all included in the consultation process. In addition, 18 species listed as BLM sensitive and 12 listed as state endangered or threatened are known or have the potential to occur within the Planning Area (refer to Appendices F, Wildlife and G, Plants).

### **Management Common to All Alternatives**

The BLM has a complex set of responsibilities for managing the habitat of threatened, endangered (T&E) and other special-status plants and animals. Section 7 of the ESA requires that federal agencies carry out programs to conserve listed species, and to ensure that their actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat. Under agency policy and guidance, the BLM manages all candidate and BLM sensitive species for their conservation and that of their habitats. The agency strives to ensure that its actions do not contribute to the need to list any species as threatened or endangered.

The BLM also manages to conserve state-listed plants and animals. As long as they are consistent with FLPMA and other federal laws, state laws

## CHAPTER 2--ALTERNATIVES

protecting these species apply to all BLM programs and actions.

### **Habitat & Species Management**

Protection of T&E and other special-status species is ongoing on Albuquerque Field Office lands, including the Planning Area. All standard wildlife stipulations and mitigation measures for proposed actions will be used to ensure that no "may affect" FWS determinations to T&E and other special-status species will occur.

The BLM will work with the FWS to implement recovery strategies for T&E species. Three recovery plans now are being implemented, for the black-footed ferret, Mexican spotted owl, and peregrine falcon.

### **Inventory & Environmental Analysis**

Inventories for special-status species and/or their habitats will follow BLM Manual 6600 and official procedures outlined by the FWS.

Under any alternative, actions will not be allowed to occur where they will affect T&E or other special-status species or their habitats. This commitment will be met by preparation of an EA before any action is permitted. The EA process will include identifying any such species in or near the area of activity; adjusting the project design, size, or location; applying appropriate stipulations (e.g., timing); or not authorizing the action.

To protect T&E and other special-status species, the BLM will use the following approach in reviewing actions proposed on agency-administered lands.

- Analyze all proposed actions to determine if T&E and other special-status species or their habitats may be affected.
- Consult with the FWS under Section 7 of the ESA when actions may affect a federally listed threatened or endangered species or its habitat, and adverse impacts cannot be eliminated. (Note: Both beneficial and adverse impacts can be part of a "may affect" determination.) During the consultation process, the BLM will not

authorize any action that will cause any irretrievable or irreversible impacts.

- For "may affect" actions from which adverse impacts cannot be eliminated, initiate an informal conference, and consider requesting technical assistance from the FWS (for federal candidates) or the State of New Mexico (for state-listed species).
- Ensure that no agency action or authorization will adversely affect the likelihood of recovery of any threatened, endangered or other special-status species.

### **Monitoring**

Monitoring efforts for special status-species and/ or their habitats will follow BLM Manual 6600 and official procedures outlined by the FWS.

### **Vegetation**

#### **Potential Natural Communities**

#### **Program Goal & Objectives**

The goal of the vegetation program for the Planning Area is to complement natural ecological processes with management practices that will provide for the establishment of the Potential Natural Communities (PNCs). Based on its soils, other physical features and climate, the environment in the Planning Area is capable of supporting four different PNCs: Grass-Shrub, Piñon-Juniper, Ponderosa Pine, and Lava Complex (USDA, SCS 1993). These are the communities that would become established if natural processes were allowed to be completed (refer to Chapter 3 and Appendix K for more information). The community goals are long-term targets that are not expected to be reached during the 15- to 20-year life of this plan.

Consistent with the goals, the BLM has developed vegetative objectives for the grass-shrub, piñon-juniper and ponderosa pine communities in the Planning Area. Compared to the goals, these objectives are more species- and site-specific. Progress toward meeting them will be measured during the life of this

plan. Specific objectives are shown in Table 2-2 for the grass-shrubland communities and in Table 2-3 for the piñon-juniper (woodland) and ponderosa pine (forest) communities.

#### **Management Common to All Alternatives**

Management for the PNC goals and objectives is in accordance with the requirements of P.L. 100-225, which states that the NCA was established to protect the ecological resources of the area (among others). Where the existing vegetation differs from the PNCs, the BLM will consider using practices such as prescribed fires, tree thinning and livestock grazing management to encourage the growth of PNC vegetation. The agency will gather additional information (e.g., vegetative use by livestock and wildlife) to guide these practices.

#### **Monitoring**

This topic is discussed below under "Forest and Woodland Resources" and "Rangeland Resources."

#### **Forest & Woodland Resources**

##### **Program Goals & Objectives**

The BLM's long-term goal for the forest resources in the Planning Area is to manage ponderosa pine stands for increased reproduction, improved stand vigor, and rehabilitation of degraded sites. For the woodland resources, the long-term goal is to maintain healthy piñon-juniper stands. Table 2-3 shows the PNC objectives for woodlands. In addition, the BLM will use forest and woodland management practices such as tree thinning in the Planning Area to help meet the PNC goal discussed above.

(Note: The BLM will conduct no forest or woodland management practices in the Cebolla or West Malpais Wilderness, or the Chain of Craters WSA. If the Congress does not designate the Chain of Craters as wilderness, forest and woodland management practices will be considered there.)

#### **Management Common to All Alternatives**

FLPMA requires that forests and woodlands be managed on the basis of multiple use and sustained yield. The Public Domain Forest Management Policy and the Material Disposal Act furnish additional guidelines for

managing these areas. P.L. 100-225 specifies that collection of green or dead wood for sale or other commercial purposes is not permitted in the NCA. However, to meet PNC goals and objectives, the BLM can contract for thinning or salvage of wood products outside wilderness and the WSA. When thinning results in a supply of fuelwood, the BLM will notify local groups that the wood is available for home use.

Before proposing any part of the Planning Area for woodland or forest management, the BLM will inventory and evaluate it. Based on the evaluation, the agency will prepare a site-specific EA for public review and comment before any action is taken.

#### **Monitoring**

The BLM will conduct site-specific monitoring on treated areas to evaluate success in attaining the vegetation objectives. The agency will also conduct compliance checks to ensure adherence to permit and contract terms and conditions, and will use patrols, surveillance and enforcement to deter unauthorized harvest of wood products. In addition, the BLM will consider using remote sensing information (e.g., satellite data, aerial photographs) to monitor changes in vegetative communities. This information will be evaluated to determine the cause of change, the effects, and any corrective action needed.

#### **Rangeland Resources**

##### **Program Goals**

The primary goals of this program in the Planning Area are to manage for healthy rangelands and ensure that livestock grazing management on each allotment contributes to the accomplishment of the PNC objectives. Proper management of grazing is essential to ensure that the PNCs are achieved.

#### **Management Common to All Alternatives**

The grazing program is authorized by the Taylor Grazing Act, FLPMA, the Public Rangeland Improvement Act, and the grazing regulations (43 CFR 4100, including the recently adopted standards and guidelines for healthy rangelands at 43 CFR 4180). P.L. 100-225 provides for the continuation of livestock

TABLE 2-2

**POTENTIAL NATURAL COMMUNITY OBJECTIVES FOR GRASS-SHRUBLANDS**  
**(plant composition percentages)**

Ecological Sites <sup>a</sup>	Grasses		Woody Plants	Forbs <sup>b</sup>
	Warm Season	Cool Season		
Clayey	20-45	20-35	10-25	5-10
Clayey Bottomland	25-40	40-60	15-20	10-15
Clayey Woodland	35-45	20-30	10-20	5-15
Loamy	40-60	20-40	10-15	5-10
Loamy Malpais	35-50	20-35	10-20	5-10
Deep Sand	40-60	20-40	5-10	10-25
Foothills	40-60	20-40	10-20, P-J canopy 25 <sup>c</sup>	5-15
Savanna	20-45	15-40	5-15, P-J canopy 25 <sup>c</sup>	5-10

Notes: <sup>a</sup> These are areas that have the potential to produce a unique vegetative community (refer to Appendix K for further explanation).

<sup>b</sup> Forbs are non-woody plants other than grasses.

<sup>c</sup> P-J is piñon-juniper; the canopy is the covering these trees provide above smaller vegetation.

TABLE 2-3

**POTENTIAL NATURAL COMMUNITY OBJECTIVES FOR WOODLANDS AND FORESTS**  
**(plant composition percentages)**

Ecological Sites	Grasses	Woody Plants	Forbs
Piñon-Juniper Woodlands	50-70	20-30, P-J canopy 20-40	10-15
Ponderosa Forests	60-80	15-25, Ponderosa canopy 10-40	5-15



grazing within the NCA under these and other applicable federal laws.

Livestock grazing management must be coordinated and designed to facilitate other programs. For example, reintroducing natural fire to open ponderosa pine habitat can improve forest health, wildlife forage, and ground cover for watershed. In general, grazing regimes must be designed to allow for frequent, routine rest for all forage species. However, in areas where natural fire is desired as a management tool, such rest from grazing is even more critical. For these areas to burn properly, they must have an understory of fine fuel (i.e., grasses, forbs and shrubs), so livestock must not be allowed to graze there. The BLM must consider burn areas; wildlife projects; management of natural waters, springs and ephemeral flows; wilderness management; and forest and woodland management in planning for livestock grazing management.

The *West Socorro Rangeland Management Program and EIS* (USDI, BLM 1982) contains additional proposed actions and management objectives for public land within the NCA. Grazing management changes to achieve the PNCs will continue to be made, following the guidance established in that document. (Note: In 1983, administration of the public land in Cibola and Valencia Counties was transferred to what is now the Albuquerque Field Office from what is now the Socorro Field Office. Twelve grazing allotments overlapping the Planning Area were part of this transfer.)

(In 1992 the BLM issued decisions to establish new grazing preferences, which included sufficient forage to provide for wildlife needs. Table L-1 in Appendix L displays the grazing preferences before and after the monitoring studies and new decisions. In addition to these adjustments, other changes in grazing management have been ongoing. These are shown in Table L-2 in the same appendix.)

**Allotment Management Categories.** Sixteen livestock grazing allotments overlap the Planning Area (refer to Map 4 in the map section following this chapter). The BLM has placed each allotment into a "Selective Management Category," based on its existing vegetative (ecological) condition and/or conflicts with other resource uses (e.g., wildlife, watershed). Categorization provides a system for focusing attention on the allotments on which changes in grazing management may be needed. The criteria

for grazing allotment categorization are displayed in Table 2-4, with the specific category for each allotment found in Table 2-5.

The I category (Improve) allotments are managed to improve their ecological condition and resolve resource conflicts. These are the allotments on which the BLM can apply vegetative management techniques, where the PNC data indicate the potential is good for change. The M category (Maintain) allotments are managed to maintain current satisfactory resource conditions. The C category (Custodial) allotments typically contain small amounts of unconsolidated public lands, have no resource conflicts, and/or have a low potential for improved resource condition. They are kept in federal ownership, with grazing fees collected, but without large investments of time or money.

**Allotment Management Plans.** The BLM will continue to implement specific prescriptions to accomplish vegetation goals and objectives through developing and revising Allotment Management Plans (AMPs). In these plans, the agency will outline the manner and extent of livestock grazing management. [Note: The agency *has* developed *a* Coordinated Resource Management Plans (CRMP), which *is* similar to *an* AMP, for Cerro Brillante (#207) *allotment within the Planning Area.*]

These plans and their revisions are key to ensuring that livestock grazing use is not limiting the accomplishment of vegetation objectives. The plans will be prepared in cooperation with the affected allottee and/or interested parties, and with input from a variety of BLM specialists to ensure that all resource needs (e.g., wildlife, watershed, forestry) are considered.

The BLM will involve the public in preparing each AMP/CRMP, any revisions, and the accompanying EA. Coordination with affected allottees, involved landowners, the Resource Advisory Council, the state and interested members of the public will be part of the AMP/CRMP process.

TABLE 2-4

## ALLOTMENT CATEGORIZATION CRITERIA

Category M (Maintain)	Category I (Improve) <sup>a</sup>	Category C (Custodial)
An allotment must meet conditions 1, 2 & 3 or 1, 2, & 4 (listed below).	An allotment must meet any one of the following three conditions.	An allotment must meet all of the following conditions.
1. Has no significant resource conflicts, and current grazing management practices are acceptable.	1. Has a potentially significant resource conflict, and current grazing management practices could be improved.	1. Has no significant resource conflicts, and grazing management practices are acceptable.
2. Has only a moderate potential for improvement in forage production (vegetative condition).	2. Has a high potential for improvement in forage production (vegetative condition), and an ecological condition rating of 50 or less.	2. Has a low potential for improvement in forage production (poor soils).
3. Has an ecological condition rating of 38 to 51 and an improving vegetative trend.	3. Has an ecological condition rating of 50 or less and a static or downward vegetative trend.	
4. Has an ecological condition of 51 or higher and a static or improving vegetative trend.		
<u>Other Considerations</u> Contains 30% or more public land or more than 1,540 public land acres.	<u>Other Considerations</u> Contains 30% or more public land or more than 1,540 public land acres.	<u>Other Considerations</u> Contains less than 30% public land or less than 1,540 public land acres.

Note: <sup>a</sup> Regardless of its size, any parcel of public land with an identified resource conflict qualifies for this category.

TABLE 2-5

**SELECTIVE MANAGEMENT CATEGORIES  
FOR GRAZING ALLOTMENTS OVERLAPPING THE PLANNING AREA**

Allotment Number	Allotment Name	Selective Management Category	Public Land Acres
201	Cerritos de Jaspe	M	9,138
202	Bright's Well	M	304
203	El Malpais	I	136,195
204	Raney	C	1,980
205	Los Pilares	I	13,998
206	Little Hole-in-the-Wall	C	320
207	Cerro Brillante	I	21,760
208	Loma Montosa	I <sup>a</sup>	7,520
209	Techado Mesa	I	35,099
210	Los Cerros <sup>b</sup>	I	40,109
211	Ventana Ridge	M <sup>a</sup>	3,013
222	Chical	C <sup>c</sup>	1,600
226	Arrosa	C	640
438	Monument Lake	C	3,200
439	La Vega	C	160
457	Palomas	C <sup>c</sup>	640
Total			275,676 <sup>a</sup>

Notes: <sup>a</sup> Includes allotment acres that are outside the Planning Area.

<sup>b</sup> Combined allotment created in 1995 to include the former Cerro Chato (#200).

<sup>c</sup> Allotments created by the BLM as the result of a land exchange with the State of New Mexico in 1987.

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### **Improving Livestock Grazing Management.**

Improvements in livestock grazing management are made by changing one or more of the following: the kind or class of livestock, the season of use, the authorized number of Animal Unit Months (AUMs), or the pattern of livestock grazing. Generally, the BLM changes the number of AUMs permitted only on the I allotments. However, the agency also adjusts use on the M and C allotments in response to changes in resource demands and conditions.

AUM changes can be implemented either through documented mutual agreement with the affected allottee (including an AMP/CRMP) or by grazing decision. These changes are implemented after consultation with the affected permittee or lessee, the state, and the interested public.

**Livestock Grazing in Wilderness.** In the NCA wildernesses, P.L. 100-225 allows previously established livestock grazing to continue as long as the intent of the Congress regarding grazing in such areas is implemented (as expressed in the Wilderness Act and the Forest System Wilderness Act). Department of the Interior Wilderness Management Policy allows motorized and mechanized equipment to be used to maintain range improvements in wilderness. The BLM has developed Range Improvement Management (RIM) Plans for the West Malpais and Cebolla Wildernesses; the plans provide guidance and procedures for using such equipment, and the BLM will continue to follow them. Allottees may use motorized vehicles on already existing routes to access windmills for annual maintenance, fences every 5 years, and dirt tanks every 10 years. (The plans are on file at the Albuquerque Field Office.)

### **Monitoring**

The BLM and allottees modify livestock grazing practices based on the results of systematic vegetative monitoring studies. These studies are done on all allotments, with the intensity and frequency based on allotment category. C allotments are field checked before permit/lease renewal or transfer. For the M allotments, vegetative trend data is collected and reviewed before permit renewal. Trend and forage utilization studies are done and evaluated every 5 years on the I

allotments. If evaluations indicate the need, the BLM implements changes in livestock grazing management through agreements with allottees or management decisions. An allotment's selective management category is changed based on new resource information.

The BLM will continue to do on-the-ground monitoring studies. To enhance these monitoring methods and increase the success of vegetative management practices, the BLM will also consider using satellite data and Geographic Information Systems (computer) analysis. Based on the comparison and evaluation of these data, the agency will continue to make adjustments in grazing use (including reduced livestock numbers). The BLM will also evaluate the data to determine the effectiveness of livestock grazing management in accomplishing the vegetation objectives. Vegetative treatments will be applied in specific areas where they are likely to succeed to encourage the formation of PNCs.

### **Riparian & Wetland Habitats**

#### **Program Goal**

The goal of this program is to manage the riparian and wetland habitats in the Planning Area for their protection and enhancement. BLM policy is to achieve a healthy and productive ecological condition for all public riparian areas (USDI, BLM 1991).

Riparian/wetland areas are those lands directly influenced by permanent water. Within the Planning Area, two springs are known to have riparian/wetland areas (refer to Chapter 3 for more information).

#### **Management Common to All Alternatives**

The BLM will take all appropriate actions (e.g., fencing, using grazing management practices) to protect these riparian/wetland habitats in the Planning Area. Construction activities that remove or destroy riparian vegetation will be avoided.

All springs and associated riparian/wetland habitats on BLM-administered lands that are presently in the Properly Functioning Condition category will be maintained at that level (USDI, BLM 1993, 1994). All springs and associated riparian/ wetland habitats that are presently in the Nonfunctional or Functional--At Risk categories will be managed to improve them to properly functioning

condition. The maintenance or improvement of these springs and associated riparian/wetland habitat could be accomplished either by using exclosures or by implementing grazing management practices that would allow these areas to continue to be maintained at or improved to properly functioning condition.

In managing livestock grazing, the BLM will design and establish practices that meet riparian and water quality needs. No livestock-related activities such as salting, feeding, construction of holding facilities, or stock driveways will be allowed to occur within the riparian zones.

Throughout the Planning Area, the BLM will continue to coordinate riparian/wetland habitat management with other programs and activities, including rangeland resources, wildlife, watershed, recreation and lands. Riparian habitat values will be addressed for all surface- and vegetation-disturbing actions.

#### **Monitoring**

The BLM will monitor riparian/wetland habitats using the process for assessing proper functioning condition for lentic systems (standing water habitats such as lakes, ponds, seeps and meadows) and lotic systems (running water habitats such as rivers, streams and springs; USDI, BLM 1993, 1994).

#### **Fire Management**

##### **Program Goal**

The goal of the fire management program is to protect visitors, other land users, wildlife, livestock, and special physical resource features of the Planning Area. Prescribed fires and wildland fires under prescription will be used by other resource programs (e.g., wildlife, range, watershed) to improve the vegetative resources and help achieve vegetative objectives; protect, improve, or enhance

wildlife and livestock habitats and watershed values; reduce the fuel load; and blend fire back into the natural process of a functioning ecosystem.

Fire has played an integral role in the Planning Area, which is made up of numerous plant communities that have developed as part of a fire-dependent ecosystem. Periodic burning of these communities is necessary to perpetuate their natural composition, structure and function.

Individual burn plans with appropriate prescriptions are required before prescribed or wildland fires are used to improve the vegetative habitats of the Planning Area. In addition to an individual burn plan, a state burn permit that includes a smoke management plan is also required.

BLM policy requires the development of a Fire Management Plan for the Planning Area, which is anticipated to be completed after this El Malpais Plan is approved. This fire plan will identify management objectives to protect, maintain, and/or enhance resource values using fire. It will also establish restrictions for actions that could cause unacceptable resource damage (e.g., bulldozers in riparian areas).

In developing the Fire Management Plan for the Planning Area, the BLM will work closely with the NPS. This will allow the integration of objectives and restrictions for the Planning Area and the National Monument.

##### **Management Common to All Alternatives**

To protect land users, property and other resource values, the BLM will take appropriate action for all wildfires on or threatening public lands. Such action can range from full suppression to allowing a fire to burn as a wildland fire where it is in compliance with appropriate prescriptions.

Under any alternative, the primary use of fire by other resource programs will be to maintain and improve wildlife habitats, vegetative communities, and watershed values through a prescribed burning program. In this way, the BLM can help restore the natural place of fire in a functioning ecosystem, the Planning Area.

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The BLM will evaluate and approve all burn plans through an EA process, paying close attention to cultural resource values (e.g., homesteads, hogans), wilderness values, visual resources, and recreational values within the area. Appropriate cultural clearances, T&E evaluations, and other environmental documentation will be required before any prescribed fire is initiated.

Within wilderness, wildland fires under prescription will be used to the greatest extent possible. Except for fuel management to reduce the risk of catastrophic fires, prescribe fires will generally not be used within wilderness. When suppression of wildfires within wilderness is necessary, the "minimum tool" philosophy will be used.

In the Fire Management Plan, the BLM will divide the Planning Area into fire suppression zones. For each zone, the BLM will identify general management practices to allow fire to become part of the natural process, while still protecting other resources values. (The initial suppression zones for the Planning Area are identified on Map 5 in the map section following this chapter.) During preparation of the Fire Management Plan and subsequent updates, the agency may modify these zones to incorporate new information (e.g., new resources at risk), changes in vegetative prescriptions, or additional information from adjacent landowners (e.g., NPS, private individuals, Indian tribes).



### **Full Suppression**

Full suppression will be used in all parts of the Planning Area where no burn plan has been approved, fire prescriptions in approved burn plans are not being met, or smoke management plans are not being met. Because of their proximity to private lands,

structures, recreational use areas or critical wildlife habitats, certain areas have been identified as full suppression zones (refer to Map 5). To prevent unacceptable resource damage and/or loss of life and property, fires will generally not be allowed to burn in these zones. In some circumstances, prescribed fires may be used to protect the resource values within these zones by reducing fuel loading. Such fires will reduce the risk of catastrophic fires in the future.

In addition to these larger, full-suppression zones, smaller locations that are widely scattered over the Planning Area and contain facilities, homesteads, historical structures or private lands will receive full fire suppression. The Spur Unit, Neck Unit, Cerritos de Jaspe Unit, and Cebolla Wilderness (along NM 117) contain the majority of such locations.

### **Prescribed Fire**

Prescribed fires will be used throughout the Planning Area where appropriate (outside of wilderness and full suppression zones) to protect, improve, or enhance wildlife/livestock habitats and watershed values. The BLM will use such fires to maintain or restore desired vegetation. In addition, the agency will use these fires to reduce fuel loading and the risk of large fires in areas where high-value resources exist (e.g., houses, land improvements).

Area burn plans will be developed on a case-by-case basis, with each taking into account the desired outcomes (vegetative response and/or fuel reduction). In each plan, the BLM will also outline the appropriate conditions (e.g., temperature, relative humidity, wind speed, soil moisture, flame height) under which fire will accomplish those vegetative outcomes.

Within wilderness and full-suppression zones, the BLM will only use prescribed fires to reduce fuel loading and the threat of large, catastrophic fires. Burn plans will be developed on a case-by-case basis as described above.

A prescribed fire is begun only when the conditions outlined in the burn plan are met. These include not only the conditions for the desired vegetative response, but also the necessary resources (staff, engines, aircraft) to ignite and control the prescribed burn.

Areas within the Chain of Craters, Continental Divide,

Breaks, Cerro Brillante and Brazo Units will be identified for prescribed fires to maintain and enhance wildlife/livestock habitat and watershed values. Other units (Cerritos de Jaspe, Neck, Spur, West Malpais Wilderness, portions of Cebolla Wilderness) will be identified for pre-scribed fires only to reduce the threat of catastrophic wildfire in wilderness and other locations in which full suppression is generally required.

#### **Wildland Fire (Under Prescription)**

Wildland fires are those that meet the conditions outlined in a prescribed burn plan, but begin naturally and are monitored to make sure they remain within prescription. Such fires usually are located in areas with natural fuel breaks (e.g. lava flows, roads) to control the fire perimeter, and where limited resources are at risk.

Areas within the West Malpais Wilderness and the Continental Divide Unit are identified on Map 5 for wildland fires under prescription.

#### **Lands & Realty**

##### **Program Goals**

The goals of this program are to continue to acquire land and easements within the Planning Area, to protect the resources for which the NCA was established, and to ensure that any rights-of-way or land use permits issued are consistent with Planning Area management goals for other resource programs and uses.

##### **Management Common to All Alternatives**

None of the public lands within the NCA are subject to disposal, as P.L. 100-225 withdraws the area from all public land laws. The *Land Protection Plan, El Malpais National Conservation Area* (USDI, BLM 1989) provides the basic framework for acquiring lands and mineral interests within the NCA. Rights-of-way and land use permit applications are authorized on a case-by-case basis, with mitigation measures to protect the resources and values for which the NCA was established.

Major new rights-of-way will be discouraged, and use of existing rights-of-way (including joint use whenever possible) will be promoted. When expansions or realignments are proposed, the BLM will work closely with the rights-of-way holders, especially state and county

transportation departments and utilities, to develop appropriate mitigation. Such measures will be designed to protect the scenic quality, natural and cultural values of the Planning Area, and to ensure visitor safety.

When new construction is needed, the BLM will identify the least damaging routes and locations, working closely with private landowners in areas of mixed ownership. New construction for roads, pipelines, powerlines and communication sites will be authorized only if no alternatives exist, and if mitigation measures can ensure protection of the scenic quality, natural and cultural values of the Planning Area. The BLM will conduct compliance inspections on all rights-of-way and land use permits.

The BLM will inform any proponents of major rights-of-way adjacent to the Planning Area of the legislative requirements to protect its scenic quality, cultural and natural resources. The agency will also oppose major rights-of-way proposals on lands adjacent to the Planning Area if they would adversely impact the area's viewshed. In these situations, the BLM will work with proponents to find alternative routes and develop appropriate mitigation.

#### **Geology, Minerals & Paleontology**

##### **Program Goal**

Protecting important, environmentally sensitive geologic and paleontologic resources while allowing for scientific collection and research, recreation and hobby collecting, and educational and interpretive activities is the major goal of this program.

##### **Management Common to All Alternatives**

To protect the resources for which the NCA was established, the BLM will authorize no mineral development on public lands within the area. P.L. 100-225 withdraws public lands in the NCA from the mining, mineral leasing and geothermal leasing laws.

The agency will continue to acquire mineral interests for public lands in the NCA, as identified in the Land Protection Plan. Approximately 40,000 acres of privately owned mineral interests exist in the NCA. As private lands are acquired within the NCA, mineral rights will also be acquired. P.L. 100-225 provides for the automatic

## CHAPTER 2--ALTERNATIVES

withdrawal of all new acquisitions within the NCA from mineral entry and leasing. This plan recommends that any new federal lands added to the NCA as the result of boundary adjustments also be withdrawn.

In areas where potentially important geologic values or fossils may be involved, the BLM will evaluate all permit applications for scientific study and develop appropriate stipulations for resource protection. The agency will also enter into agreements with appropriate institutions to conduct research on La Rendija (Maxwell's Fault) and other areas of geologic and paleontologic interest.

The BLM will develop appropriate interpretive materials to explain the significance of the special geologic features of the Planning Area, such as the Chain of Craters, the cliffs at The Narrows, La Ventana Natural Arch, Cerro Rendija, Hole-in-the-Wall and Cerritos de Jaspe. The agency will conduct compliance inspections on all activities involving valuable geologic and paleontologic resources.

### **Soil, Water, & Air Resources**

#### **Program Goals**

The goals of this program are to protect, maintain, and enhance the soil, water and air resources of the Planning Area for the benefit of humans, wildlife and livestock. The program will continue to support other resource activities in the Planning Area.

#### **Management Common to All Alternatives**

The BLM will continue to participate with the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) in the National Cooperative Soil Survey. Detailed soil surveys for individual projects will be conducted as needed. Areas in which soils are sensitive and susceptible to high erosion will be monitored.

Allottees will be encouraged to enter into cooperative agreements with the NRCS to develop erosion control plans on private land within the Planning Area. As needed, the BLM will develop watershed activity plans as a part of grazing AMPs/CRMPs for the Planning Area. Through implementing AMPs/ CRMPs, the BLM will work to increase vegetative cover to reduce erosion.

The BLM will monitor and maintain water quality at the Ranger Station and any other developed drinking water sites in accordance with state standards. Water quality at natural springs on public lands in the Planning Area will also be monitored.

Soil, water and air resources will be considered when the BLM initiates or authorizes projects. As needed, BLM conservation practices and the State of New Mexico's best management practices will be applied to surface-disturbing activities.

To obtain valid water rights on public lands in the Planning Area, the BLM will file for them with the New Mexico State Engineer's Office.

Water wells and watershed projects that are no longer functioning or serving their original purpose will be reclaimed and abandoned as appropriate.

### **PLANNED ACTIONS FOR EACH ALTERNATIVE**

Four alternatives are identified in this section, with their impacts analyzed in Chapter 4: A-- Continuation of Existing Management (No Action), B--Resource Use (emphasizing human activities), C--Natural Processes, and D--Balanced Management or the Preferred Alternative (seeks an optimal, balanced mixture of management prescriptions).



In response to the planning issues, these alternatives have been developed as a range of reasonable combinations of resource uses and management practices. In combination with the continuing management guidance and actions (discussed above), the alternatives provide management direction for all resources and uses. They also provide a distinct choice of potential management strategies. Each alternative conforms to FLPMA and is consistent with P.L. 100-225.

#### **Alternative A--No Action (Existing Management)**

This alternative represents a continuation of the management practices defined in the *Rio Puerco Resource Management Plan*, with minimal modifications needed to meet the requirements of P.L. 100-225. It provides a baseline for comparison with other alternatives and may not adequately resolve the issues identified in this plan. The management direction for this alternative is derived from existing management decisions and guidance, as discussed above under "Continuing Management Guidance."

#### **Issue 1--Recreation**

Under this alternative the emphasis for recreation would be on dispersed recreational opportunities, with some site-specific opportunities offered. Most available activities would be related to roads and motorized uses (except in designated wilderness) as identified through the ROS classification system. (Refer to Table 2-6 and Map 6 for display of ROS Classes in the Planning Area under this alternative, and to Appendix C for a description of the ROS System.) Only small or subtle modifications would be made in the Planning Area to facilitate and direct recreational use, except at the Ranger Station and La Ventana Natural Arch.

The BLM would provide opportunities to participate in such activities as camping, hiking, horseback riding, hunting, mountain biking, picnicking, sightseeing, backcountry driving, wildlife watching, and exploring and learning about historical and archaeological sites. Opportunities to participate in recreational activities of interest to smaller populations, such as caving, climbing, skiing, shooting, trapping, photography, pack trips, enjoying wilderness solitude, and road biking

would continue to be offered. Wilderness designation, wildlife habitat protection, and off-highway vehicle (OHV) designations would limit the opportunity to participate in some activities at some locations within the Planning Area. Those users seeking to recreate without motorized vehicles and equipment would be directed to the 100,800 acres of wilderness within the Planning Area.

Recreational activities associated with caving would be dependent on the significance of the cave. Within the Planning Area, caves would be managed in accordance with the Federal Cave Resources Protection Act and related BLM policy. Recreational use that would adversely affect significant cave resources would be deferred or denied. Information about the location of significant caves would not normally be made available to the general public, and use of these caves would be regulated.

Recreational facilities and actions already completed or approved would continue to be managed for their intended use. This includes the Ranger Station on NM 117 with its nature trail; a parking lot, toilets, and a trail at La Ventana Natural Arch; and the CDNST and two trailheads (refer to Map 10).

Camping would remain primarily a dispersed activity throughout the Planning Area. One semi-developed site at The Narrows would provide facilities for campers and picnickers. This site contains four units with portable toilets and tables for single-family use. Overnight backpacking would be encouraged elsewhere to disperse camping activities and impacts. Camping would remain prohibited at La Ventana Natural Arch.

Use of the existing Narrows Rim Trail, CDNST, La Ventana Natural Arch Trail, Hole-in-the-Wall Trail, and Ranger Station Nature Trail (approved but not yet built) would provide opportunities for hiking and other trail-related recreational activities under this alternative. Visitors could also hike cross-country to unique and important cultural and natural resources in the Planning Area, including the Dittert Site and homesteads in Armijo Canyon; the Rowe Homestead, at the mouth of Cebolla Canyon; the Stone House, located farther into this canyon; La Rendija, a large

#### **ALTERNATIVE A**

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crack in an old basalt flow; Hole-in-the-Wall, a kipuka (island of older vegetated basalt flows surrounded by more recent flows); and the cinder cones in the Chain of Craters (refer to Table 2-7).

Hiking through the Chain of Craters would be encouraged along the CDNST, with other opportunities along existing and closed vehicle routes for users not interested in cross-country travel. Visitors would be encouraged to practice a Leave No Trace backcountry ethic.

The Hole-in-the-Wall portion of the West Malpais Wilderness would be promoted for its

rugged terrain. Access can be gained by hiking or backpacking along an authorized vehicle route (for maintenance of existing range improvements) that is about 7 miles long and cuts through the lava flows.

To enable more convenient horseback access and use of the Cebolla and West Malpais Wildernesses, the BLM would maintain the wilderness boundary entrances at The Narrows and Hole-in-the-Wall.

**TABLE 2-6**

**RECREATION OPPORTUNITY SPECTRUM CLASSIFICATIONS  
FOR THE PLANNING AREA (PA), BY ALTERNATIVE <sup>a</sup>  
(acres, rounded to nearest hundred)**

ROS Class	Alternative A		Alternative B		Alternative C		Alternative D	
	Acres	% PA	Acres	% PA	Acres	% PA	Acres	% PA
Roaded natural	79,200	28	79,200	28	72,700	25	79,000	28
Semi-primitive motorized	85,000	30	82,200	29	56,900	20	72,000	25
Semi-primitive nonmotorized	122,100	42	124,900	43	156,700	55	135,300	47
Totals	286,300	100	286,300	100	286,300	100	286,300	100

TABLE 2-7

**UNDEVELOPED (NON-TRAIL) HIKING OPPORTUNITIES  
EMPHASIZED UNDER EACH ALTERNATIVE**

Map ID Number <sup>a</sup>	Alternative				Area/Destination
	A	B	C	D	
H-1					Rowe Homestead
H-2					Stone House
H-3					Armijo Canyon Homestead & Springhouse, Dittert Site, Cebolla Wilderness
H-4					Hole-in-the Wall, West Malpais Wilderness
H-5					La Rendija
H-6					Chain of Craters, Worley Homestead
H-7					Narrows Rim, Cebolla Wilderness
Total Number of Identified Opportunities	6	2	6	3	

Note: <sup>a</sup> Refer to Maps 10 through 13 for the location of these opportunities.

Numerous other areas also provide opportunities for horseback riding, as shown on Map 10.

Hunting opportunities would remain the same as at present; hunting and trapping are permitted in the Planning Area in compliance with NMDG&F regulations. Licensed hunters must not drive off established roads except to retrieve legally taken big game where permitted under the motorized vehicle area designations within the Planning Area. The density of roads in the Planning Area provides good hunting access but limits solitude and isolation.

Mountain bike opportunities would continue to exist along NCA and Planning Area travel routes open to the public. Brochures and other informational material on mountain bike routes would be made available when the requests became more frequent or the need for resource protection increased.

The BLM would continue to provide picnicking opportunities at facilities at the southern end of The Narrows and throughout the Planning Area. This would be a dispersed activity not dependent on facilities.

Approximately 354.5 miles of BLM-administered roads would be available for sightseeing, driving for pleasure, or back-country driving. The Chain of Craters Back Country Byway would provide excellent opportunities for back-country driving, sightseeing and wildlife viewing in the western portion of the Planning Area.

Sightseeing for cultural interest would be offered at the Dittert Site, the Ranger Station Reservoir, and through guided hikes to the Aldridge Petroglyphs. Sightseeing for historical interest would be offered at one or more of six fenced or stabilized homesteads sites (Armijo Canyon Springhouse, Armijo Canyon Homestead, Stone

## CHAPTER 2--ALTERNATIVES

House (two sites), Rowe Homestead, and Worley Homestead).

Under Alternative A, no specific areas or stretches of road would be identified, signed or developed for watching wildlife. However, the BLM would provide information on wildlife viewing through brochures, other publications at the Ranger Station, and personal contact by staff members.

The BLM would continue to issue Special Recreation Permits to qualified applicants for commercial, competitive, and organized uses of public lands on an as-requested basis. The permit process includes an EA and determination of conformance with the management decisions for the area in which the proposed use is planned. When issued, permits would include stipulations for resource protection and reduced user conflicts.

The emphasis for interpretation under Alternative A would be on dispersed and wildland recreation. BLM staff would work with the local Chamber of Commerce and federal agencies to achieve this emphasis.

During the summer months or as time permitted, the BLM would conduct evening programs at the Ranger Station parking lot or local private campgrounds as available. At least eight programs would be offered each year. At the Dittert Site, selected homesteads and petroglyph panels, the BLM would continue to conduct guided hikes for groups requesting them.

### **Visual Resource Management**

The VRM System would continue to be the basic tool for managing visual resources on public lands in the Planning Area. Under Alternative A, emphasis would be placed on managing the visual resources under the VRM classes assigned through the RMP (refer to Table 2-8 and Map 14) and BLM policy.

The management of visual resources on acquired lands outside the NCA but within the Planning Area would be handled on a case-by-case basis, because these lands were not included in the

RMP and VRM classes have not been assigned. Lands with new projects would be assigned an interim VRM Class to conform with the land-use allocations and scenic quality of the surrounding area, using procedures identified in BLM Manual H-8410-1. Those acquired lands in the NCA and surrounded by lands with RMP-assigned VRM classes would be managed according to the appropriate class objectives. These classes and objectives would remain in effect until VRM objectives were assigned through this plan.

The Cebolla and West Malpais Wildernesses, containing approximately 100,800 acres of public land, would be managed under VRM Class I objectives. As shown on Map 14, most of the Cerritos de Jaspe, some of the northeast corner of the Continental Divide, the northeast corner of the Cerro Brillante, and the southern portion of the Neck Unit (another 24,330 acres of public land) would also be managed under VRM Class I objectives. Any new projects and management activities would be done in a way that would preserve the existing character of the landscape. Any visual contrast from the form, line, color or texture of the existing landscape that was created by new activities should be very low and not attract attention. To comply with Class I objectives, the projects would have to harmonize with and compliment the natural environment.

In the remainder of the Planning Area, the BLM would develop projects and management actions would be developed within the established VRM Class II or III objectives. Class III lands (approximately 14,110 acres) are located mostly in the southwest corner of the Planning Area and the north half of the Neck Unit. The other 86,760 acres within the Planning Area would be managed as VRM Class II.

The objective for Class II lands is to retain the existing character of the landscape but in a slightly less restrictive manner than for Class I. Changes in the landscape character from activities should be low; the activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form line, color and texture found in the predominant natural features of the characteristic landscape.

**TABLE 2-8**

### **VRM CLASSES ASSIGNED TO PUBLIC LAND**

IN THE PLANNING AREA (PA), BY ALTERNATIVE <sup>a</sup>

VRM Class	Alternative A		Alternative B		Alternative C		Alternative D	
	Acres	%of PA	Acres	%of PA	Acres	%of PA	Acres	% of PA
I	125,130	50	104,450	42	128,440	52	104,730	42
II	86,760	35	129,440	52	119,500	48	143,210	58
III	14,110	6	14,110	6	60	<1	60	<1
Unclassified	22,000	9	0	0	0	0	0	0
Totals	248,000	100	248,000	100	248,000	100	248,000	100

Note: <sup>a</sup> No VRM Class IV areas exist in the Planning Area.

On Class III lands, a moderate level of change to the characteristic landscape would be allowed through landscape alteration by manipulation of the vegetation or soils, or the introduction of structures. Here management activities may attract attention but should not dominate the view of the casual observer. Visual changes on Class III public lands should repeat the basic elements of form, line, color and texture common to the predominant natural features of the characteristic landscape so they remain secondary to the natural surrounding.

The Ranger Station on New Mexico (NM) 117 was constructed to comply with the requirements of P.L. 100-225, harmonizing with the surrounding landscape but attractive to the public. It was built on lands acquired after the passage of P.L. 100-225 and the completion of the RMP.

### Issue 2--Facility Development

Under Alternative A, the emphasis for recreation would be on dispersed opportunities. Therefore, only limited facility development beyond what already exists in the Planning Area would be undertaken (refer to Map 10). Existing facilities would be altered if needed to make them universally accessible, with any new facilities built to this standard. Monitoring would continue at selected locations; if it showed that resource damage caused by recreation and visitor use exceeded established limits of acceptable change (LAC), the BLM would develop additional facilities and/or take other appropriate actions. (Appendix D provides an overview of the LAC system and Monitoring Plan for the

NCA, as revised in 1995.)

Camping would continue to be encouraged at the southern end of The Narrows. Existing facilities there (for picnicking, camping, and parking) would remain as they are now, with the addition of one portable toilet (for a total of two). The BLM would construct no other developments for picnicking or camping in the Planning Area.

The road providing access to the southern end of The Narrows would be improved to an all-weather, gravel surface. Vehicle access through the northern end of the site would be closed for safety reasons.

The two existing, paved parking lots on the east side of the Planning Area would be maintained; from them, people could continue to disperse to recreate. The lot at La Ventana Natural Arch has a capacity for 32 cars and 3 recreational vehicles or buses. At the Ranger Station, the lot has a capacity for 30 cars and 5 recreational vehicles or buses.

The horse access gates at the south end of The Narrows and into Hole-in-the-Wall would remain. No additional facilities would be planned for horseback riding opportunities at either location or elsewhere in the Planning Area.

Five established trails approximately 36.5 miles long, with five trailheads, would exist in the Planning Area. These trails would consist of the La Ventana Natural Arch Trail, the approved CDNST crossing the west side of the

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Planning Area (with two trailheads to be installed), the Ranger Station Nature Trail, and two informal trails (at Hole-in-the-Wall and the Narrows Rim--refer to Table 2-9 for a listing of trailheads under each alternative). No additional trails or trailheads would be developed.

(Note: Informal trails have little or no tread development, a limited number of trail markers, and the lowest priority for maintenance. They become established along travel routes for other motorized and nonmotorized uses. Typically they are not in an appropriate location for resource protection.)

When built, the Nature Trail (approved in 1989) would extend from the Ranger Station to form a loop about ½ mile long. This trail would pass the Ranger Station Reservoir and highlight scenic views, local flora and fauna.

Providing access to La Ventana Natural Arch is a constructed trail approximately ½ mile long. This trail, which leads from the parking lot, crosses the Cebolla Wilderness to the base of the arch. The first part of the trail (to a photographic viewpoint just outside the wilderness boundary) is paved to accommodate universal access.

The 3.5-mile-long, informal Narrows Rim Trail, which has been marked with rock cairns, would be available for hiking, backpacking and access to the Cebolla Wilderness. Visitors could continue to park at The Narrows, and the BLM would continue to maintain the trailhead signs. No new actions would be planned for this trail.

West Malpais Wilderness visitors would be able to continue using the informal Hole-in-the-Wall Trail (approximately 7 miles one way from where it enters the wilderness). The horse access gate near the wilderness entrance would be maintained, but no new developments would be planned for this trail.

The BLM, **volunteers, organizations**, and other agencies are developing a treadway for users and resource protection along approximately 25 miles of the CDNST that crosses public land in the Planning Area (refer to Map 10) (**refer to Map 38 for updated location**). The treadway will follow the selected route established in the CDNST plan (USDA, FS 1993). This CDNST plan also identifies the need to construct trailheads, two of which would be located in the Planning Area (at Cerro Americano and Cerro Brillante). Each

trailhead, with a graded parking area for up to 10 vehicles, would serve as a staging area for CDNST users. As needed, informational and regulatory signing would also be installed at these locations. (Refer to Table 2-9 for a listing of the trailheads that would exist under each alternative.)

No trails for mountain bike users would be marked until established Limits of Acceptable Change (LAC) for bike social trails in particular locations were exceeded. This would trigger the need to inform visitors about riding opportunities on existing travel routes, marking these routes, and educating riders about resource protection. Opportunities for mountain biking on existing travel routes in the Chain of Craters, Cerritos de Jaspe, and/or Brazo Units would be promoted when LAC standards were exceeded.

The BLM would build no new facilities to enhance sightseeing, driving for pleasure, or back-country driving. The Chain of Craters Back Country Byway would be maintained and developed through coordination with Cibola County and the NPS. Within the Planning Area, the BLM would install and maintain up to four back-country byway signs and up to four kiosks. (Such signs typically measure 3 feet high by 5 feet wide and stand 6 feet tall with support posts; refer to Figure 2-a. A typical kiosk is shown in Figure 2-b with a pullout in Figure 2-c.)

To gather information about visitation, the BLM would install visitor registration boxes at up to four selected homesteads. These sites have access gates for visitors who have hiked in.

Figure 2- a  
Back Country Byway Sign

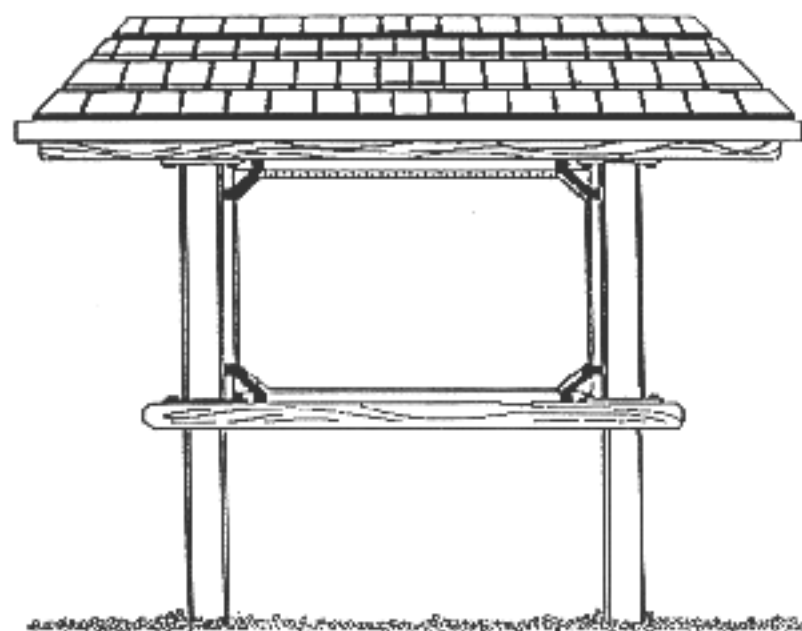
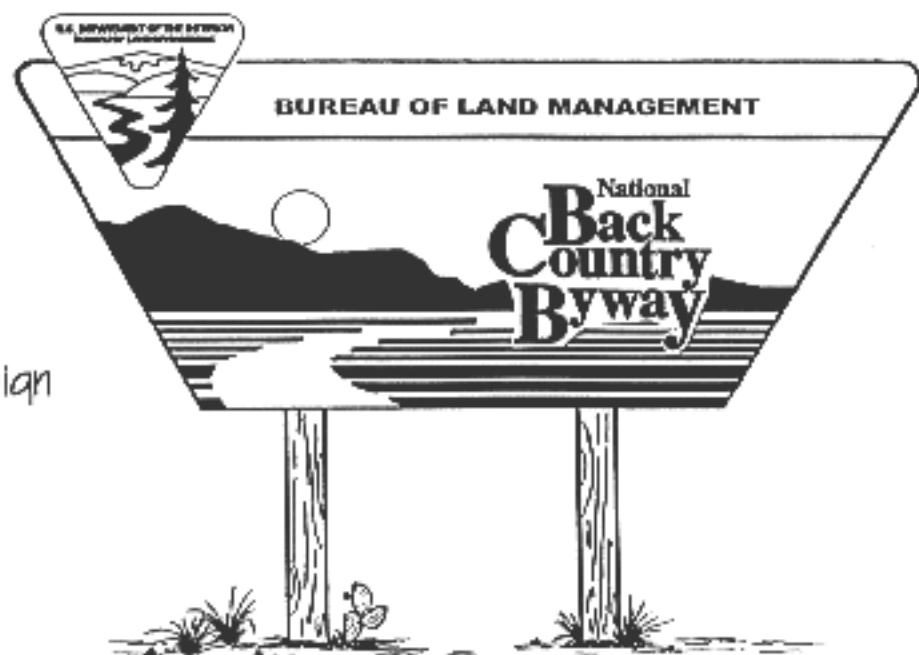


Figure 2- b  
Typical Kiosk

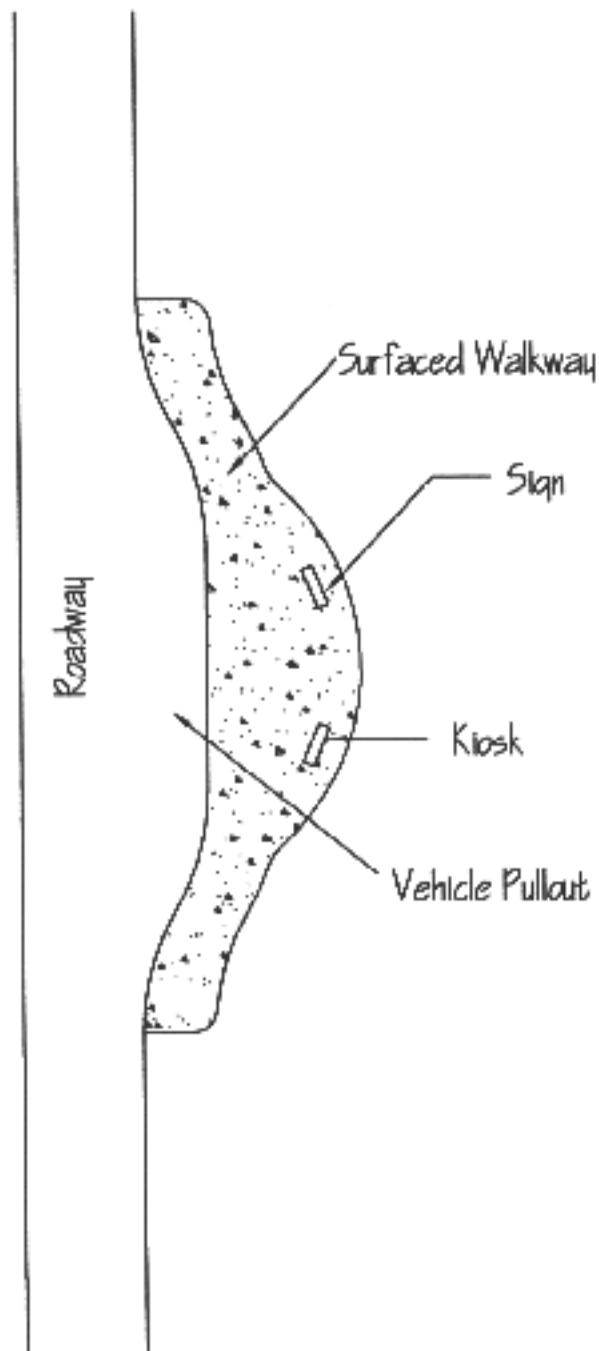


Figure 2- c  
Typical Pullout for Sign and Kiosk

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.



TABLE 2-9

**TRAILHEADS IN THE PLANNING AREA  
UNDER EACH ALTERNATIVE**

Map ID No. <sup>a</sup>	Name	Alternative				Trail Use or Destination Served
		A	B	C	D	
<u>Existing/Approved</u> T-1	Ranger Station					Ranger Station Reservoir, Nature Trail
T-2	La Ventana Natural Arch					La Ventana Nat'l Arch & Cebolla Wilderness
T-3	The Narrows					Cebolla Wilderness, Narrows Rim Trail
T-4	Cerro Brillante					CDNST, West Malpais Wilderness, La Rendija, West Malpais Schoolhouse, Chain of Craters
T-5	Cerro Americano					CDNST, mountain bike use
<u>Proposed</u> T-6	Aldridge Petroglyphs					Prehistoric site in Cebolla Wilderness
T-7	Armijo Canyon/Dittert Sites					Cultural & historical sites in Cebolla Wilderness
T-8	Brazo (2 trailheads) <sup>b</sup>					Mountain bike use
T-9	Cebolla Canyon Community					Cultural sites, (Arroyo Ruin, The Citadel, Oak Tree Ruin, Rowe Homestead
T-10	Cebolla Canyon Schoolhouse					Historical schoolhouse in Cebolla Wilderness
T-11	Cerritos de Jaspe <sup>b</sup>					Mountain bike use
T-12	Hole-in-the-Wall					Old volcanic flows surrounded by newer ones, West Malpais Wilderness
T-13	Lobo Canyon					Prehistoric petroglyphs in Cebolla Wilderness
T-14	Pinole Site					Cultural site in Cebolla Wilderness
T-15	Spur Campground					Loop trail past amphitheater
T-16	Stone House					Cultural site in Cebolla Wilderness
Total No. Under Each Alternative		5	16	2	11	

Note: <sup>a</sup> Refer to Maps 10 through 13 for the location of these trailheads.

<sup>b</sup> These trailhead locations are not yet pinpointed; they would only be developed if use showed the need.

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To capture information from visitors hiking into the Cebolla Wilderness to the Dittert Site, the BLM would install another registration box at the informal parking area in Armijo Canyon (at the end of the public road near the wilderness boundary). Signing of the site to protect archeological resources would continue, and visitors would be informed of how to reach the site and the current road condition. No additional site developments would be planned.

No recreational facilities would be developed or constructed for viewing wildlife. The entire NCA is considered to be a "Watchable Wildlife" viewing area.

Entry signs would be maintained at nine locations (refer to Map 10), with additional signs posted as indicated by public comment or to eliminate confusion. (The dimensions of these signs are discussed above.)

No design standards for visual resources management would be used to maintain a consistent appearance for constructed facilities in the Planning Area.

If Alternative A was selected, limited interpretive facilities would be developed at recreation access points, picnic areas and trailheads. Most if not all interpretation would occur through one-on-one contact with visitors (including public programs and guided hikes); exhibits, interpretive media and publications at the Ranger Station; wayside exhibit panels and existing signs.

### **Issue 3--Access & Transportation**

On 147,200 acres of public land (59 percent of the public land acres in the Planning Area), motor vehicle use would be allowed on existing inventoried routes (i.e., arterial, collector, and local travel routes, as shown on Map 18 and defined in the Glossary). About 41 percent of the public lands in the Planning Area would be closed to motorized vehicles and mechanical forms of transportation (except as authorized), mainly because of wilderness designation (refer to Table 2-10 and Map 22). Vehicle use in the 18,300-acre Chain of Craters WSA would be limited to existing inventoried routes.

On 3,600 acres of public land designated as open and 8,400 undesignated acres, users could travel by motor vehicle off routes and trails. This cross-country travel would be permitted unless monitoring showed that emergency closures or limitations were needed because of re-

source conditions, safety concerns, or user conflicts.

Except in designated wilderness and some scattered parcels of public land in the Neck Unit, access for recreational activities and other uses could occur on 354.5 miles of inventoried, BLM-administered figures 2-a & 2-b figure 2-carrier, collector and local vehicular routes scattered throughout 147,200 acres of the Planning Area (refer to Table 2-11, and to the Glossary for definitions). The BLM would maintain these routes on an as-needed or emergency basis. An additional 6.3 miles of routes outside wilderness are identified through agreements with the users for authorized use only.

(Note: Approximately 76 miles of state highways and county, U.S. Forest Service and private roads exist within the boundaries of the Planning Area. They would remain unaffected by management under this alternative, and are not included in Table 2-11.)

Existing facilities installed in association with this vehicle transportation network would remain in place (e.g., parking areas, trailheads, wayside exhibits and signs), including those for interpreted cultural, historical and geologic features. Signs, maps, and brochures informing the public of access opportunities and restrictions would remain limited, although the BLM would continue to install and maintain signs needed to inform and direct use.

Cross-country access by nonmotorized means (e.g., horseback, mountain biking, hiking) would be allowed to continue in the Planning Area. However, it is assumed that most of this would be concentrated on existing or abandoned back-country roads and a few trails because of terrain and vegetation conditions. Mountain bikers would be prohibited from accessing the wildernesses but would be allowed to use the remaining Planning Area lands without restriction to specific trails or roads.

Motorized and mechanical forms of transport on portions of the Narrows Rim and La Ventana Natural Arch Trails within wilderness would be prohibited. As at present, American Indians would be able to use existing roads for religious and cultural practices.

#### **Issue 4--Wilderness Management (Cebolla & West Malpais)**

Management would continue as at present until this plan is approved. The BLM would continue to focus on signing, prevention of unauthorized vehicle intrusions, patrolling and monitoring of the areas, and public education.

The BLM and volunteers would continue to patrol the areas at least once a month when they were accessible to the public, and more frequently when conditions warranted. Patrolling would be used to deter violations, gather information within the areas, and inform users about the resources and appropriate uses of designated wilderness.

The public would continue to use the areas for primitive types of recreation that do not require the use of motor vehicles, motorized equipment or other forms of mechanical transport such as mountain bikes. The BLM would continue to encourage recreational use of the areas through distributing maps and brochures identifying available opportunities. The existing facilities on the perimeter of the wildernesses, along with trail improvements, would remain in place for continued recreational use and resource protection.

La Ventana Natural Arch, The Narrows, and Armijo Canyon would continue to serve as access points to the Cebolla Wilderness. Cebolla Canyon Road (No. 2003), which splits the Cebolla Wilderness, and the Sand Canyon road (a dead-end, cherry-stemmed road) also would provide access. From The Narrows recreation site, the Narrows Rim Trail extends 3.5 miles into the Cebolla Wilderness.

For the West Malpais Wilderness, the trailhead at the end of the cherry-stemmed road off County Road (CR) 42 would continue to serve as the primary access point. A trail following a vehicle route that leads into Hole-in-the-Wall, a major attraction of this wilderness, would continue to be identified for access to the area.

Except at La Ventana Natural Arch, where permanent restroom facilities and a paved parking lot are provided, facilities at trailheads and other entry points would remain rustic in nature. Onsite information would remain limited. Through interpretation and signing, the BLM would identify the boundaries, the wilderness name, and some regulations governing use of the area. When users were encountered during patrols, BLM staff and volunteers would provide additional onsite information and education. Information about the areas, Leave No trace principles, and wilderness stewardship would also be available at the Ranger Station on NM 117, the wayside interpretive panels at La Ventana Natural Arch, BLM offices in Grants and Albuquerque, and on guided hikes.

Motorized vehicle access and other forms of mechanical transport (except as authorized under the Wilderness Act and P.L. 100-225) would be allowed only for access to nonfederal inholdings and livestock grazing operations; use of 5.5 miles of routes in Cebolla and 17.8 miles in West Malpais Wilderness have been authorized through prior agreements. Access and use for livestock grazing would continue under the conditions set in the BLM RIM Plans (USDI, BLM 1990) and AMPs/ CRMPs for individual allotments overlapping these two areas (refer to Map 23). Access to inholdings would continue over routes selected by the BLM to cause the least impact to the area's wilderness character, while serving the purposes for which the land was held or used.

Traditional American Indian cultural practices would be allowed to continue in the two areas in a manner consistent with the intent of the Wilderness Act. Motor vehicle access to the perimeter of each wilderness would be allowed, but such use inside the wilderness would be prohibited, unless the BLM has granted prior authorization after consultation and evaluation. When the BLM authorized such use of motorized vehicles by American Indians, stipulations to control impairment of wilderness character would be met. Upon request, the BLM would temporarily close the smallest practicable area for the minimum period needed to accommodate American Indian activities.

TABLE 2-10

**MOTOR VEHICLE AREA DESIGNATIONS IN THE PLANNING AREA (PA), BY ALTERNATIVE  
(public land acres)**

Area Status	Alternative A		Alternative B		Alternative C		Alternative D	
	Acres	% of PA	Acres	% of PA	Acres	% of PA	Acres	% of PA
Open	3,600	1	0	0	0	0	0	0
Closed	100,800	41	104,450	42	128,440	52	104,730	42
Limited	135,200	54	143,550	58	119,560	48	143,270	58
Undesignated	8,400	4	0	0	0	0	0	0
Totals	248,000	100	248,000	100	248,000	100	248,000	100

**TABLE 2-11  
STATUS OF BLM MOTOR VEHICLE ACCESS ROUTES  
UNDER EACH ALTERNATIVE**

Route Status	Alternative A		Alternative B		Alternative C		Alternative D	
	Miles	% of Total	Miles	% of Total	Miles	% of Total	Miles	% of Total
Open	354.5	98	337.5	93	199.7	55	273.1	75
Closed	2	<1	19	5	133.1	37	83.4	23
Authorized <sup>a</sup>	6.3	2	6.3	2	30	8	6.3	2
Totals	362.8	100	362.8	100	362.8	100	362.8	100

Note: <sup>a</sup> These routes are authorized for use by BLM staff members and grazing permittees only; they are not open to the general public.

In most instances, cultural and historical resources would be subject to the same forces of nature as other wilderness resources. However, stabilization and scientific studies of selected sites within the two wildernesses would continue as required to meet protection and preservation mandates. Research would be authorized if it could be carried out in an unobtrusive manner by methods compatible with preservation of the area's wilderness character. Except for guided trips, visitor information and education programs about selected cultural and historical sites within the wildernesses would be located outside the wilderness boundary.

Wildlife habitat management would continue to be guided by the BLM's Wilderness Management Policy (BLM Manual 8560). Hunting and trapping would be permitted under applicable state and federal laws and regulations. Use and maintenance of two existing wildlife exclosures and one water catchment would be allowed to continue under the "minimum tool" concept.

Proposed BLM vegetation treatments would be considered on a case-by-case basis in accordance with the Wilderness Management Policy. Fires would be controlled to prevent their spread to areas outside wilderness, the loss of human life or property. The BLM would suppress fires using methods that would cause the minimum adverse impact on wilderness character.

The BLM would continue to seek acquisition of wilderness surface (500 acres in each wilderness) and subsurface inholdings from owners willing to sell (refer to Map 24). Priority would be given to those lands that are undeveloped, or where their use would pose a threat to the area's wilderness character. Under Alternative A, the BLM would recommend no adjustments of either wilderness boundary. The size of either wilderness would increase only as the result of acquisition of inholdings. No other lands outside these two areas would be recommended for wilderness designation.

## **Issue 5--Wilderness Suitability**

### **Chain of Craters WSA**

Under Alternative A, all 18,300 acres within this area would continue to be managed as part of the NCA under P.L. 100-225 and the BLM's wilderness Interim Management Policy, which contains non-impairment guidelines. The recommendation for the WSA would be

that it was unsuitable for wilderness designation. When the Congress decides the area's wilderness status, the lands will either be managed as wilderness or released from study and managed under the existing land use plan.

Grazing operations in the WSA would continue to use 2,864 AUMs of forage per year, unless monitoring of forage condition and production indicated a need for change. Livestock operators would continue to maintain pre-FLPMA livestock developments using motorized equipment. The BLM could approve new, permanent livestock developments if they enhanced wilderness values, and would not require motorized access to maintain if the area was designated as wilderness.

The WSA would be managed to provide three ROS classes: roaded natural (7,800 acres), semi-primitive motorized (7,500 acres), and semi-primitive nonmotorized (3,000 acres; refer to Map 6). The unit would continue to offer opportunities for sightseeing, day hiking, mountain biking, backpacking, camping, semi-primitive motorized touring, horseback riding, birdwatching, landscape and nature photography, observation of geologic phenomena, and hunting.

Motorized vehicle use in the WSA would continue to be limited to existing vehicle routes (ways and trails). Approximately 44 of the 47 miles of inventoried routes would remain open, unless continued use was causing impairment of wilderness values. At that time the route(s) would be closed. Approximately 9 miles of the selected CDNST corridor passes through the WSA. This corridor was approved as part of the CDNST plan (USDA, FS 1993), and would remain open under Alternative A.

Visual resources in the WSA would be managed under a Class II designation. Any change in the basic landscape elements (form, line, color or texture) caused by a management activity could not be evident in the characteristic landscape.

**Lands Contiguous to the  
Cebolla Wilderness**

Under the No Action Alternative, 10,380 acres of lands contiguous to the Cebolla Wilderness (shown on Map 29) would continue to be managed in accordance with the decisions from the Rio Puerco RMP. The BLM would not recommend these lands for wilderness designation, nor would they be managed under the Interim Management Policy.

**Issue 6--American Indian Uses  
& Traditional Cultural Practices**

P.L. 100-225 explicitly recognizes the importance of continuing American Indian traditional cultural practices in the NCA. It is not appropriate for the BLM to develop alternative management actions specifically related to these practices. However, the agency has considered such uses as an important part of formulating proposed management actions for other issues under this plan's alternatives.

**Issue 7--Cultural Resources**

Under the Rio Puerco RMP, the NCA is designated a Special Management Area, with cultural resources recognized as an important contributing value. As directed in the RMP, specific activity plans were to have been prepared for key NCA resources, such as the Cebolla Canyon Community, the Armijo Canyon features, and the historical homesteads. The following section describes actions that would have been likely proposals under these activity plans but are now part of this El Malpais Plan.

(Note: Emphasis was also to have been placed upon management of Candelaria Ruin, a Chacoan outlier and designated Archeological Protection Site under the Chaco Protection Act. However, this ruin and much of its associated community are now included in the National Monument administered by the NPS so it is not discussed here.)

**Use Allocation**

The RMP allocates all PaleoIndian sites and most Archaic and Pueblo sites to be "Managed for Conservation," a goal that implies a commitment to maintain them in their present condition and protect them from potentially conflicting land or resource uses. Under this determination, the sites are assigned to the BLM's cultural resource use category, "Conservation for Future Use" (refer to the Glos-

sary), which allows no physical alteration of the properties. However, the BLM would make exceptions to this determination when current scientific use was needed to evaluate the properties. For Archaic and Pueblo sites, when most would remain under the management for conservation goal, a few could be physically altered for scientific use. A few historical sites are to be managed for conservation and scientific use. Very few sites of unknown cultural affiliation would be managed for conservation. Finally, any site identified as having sociocultural value would be managed for that value.

**Compliance with the  
National Historic Preservation Act**

Under Alternative A, the BLM would complete Class III inventories in areas of direct impact before any surface-disturbing project was authorized, as stated in "Management Common to All Alternatives." The need to conduct inventories to address secondary impacts for development projects would be determined on a case-by-case basis, and decisions concerning mitigating measures would be made using routine procedures and considerations.

**Inventory & Baseline Condition**

Baseline information is needed for more effective ARPA enforcement and to identify sites vulnerable to natural deterioration. Additional inventories to document this condition would be proposed for the cultural resources in Cebolla Canyon, Armijo Canyon and other critical areas. The overall objective would be a 2½-percent inventory of the Planning Area over the life of this plan, which would result in approximately 6,553 acres of new Class III inventory.

**Scientific Investigations**

No special restrictions would be placed on archeological research outside wilderness. Applications for ARPA permits would be evaluated on a case-by-case basis, with the usual requirements for public participation, including American Indian consultation. It is difficult to predict the number of projects that would be proposed during the life of the plan, or the number of sites that might be affected. Past levels of activity on Albuquerque Field Office lands suggest that over the next 20 years, three to five projects would be permitted, with intensive investigations at a comparable number of sites, or less intensive investigations over a greater number of sites.

Scientific investigations in wilderness would have to conform to the "minimum tool" standard, that is, motorized vehicles and equipment would be prohibited unless no other reasonable alternative existed. If such use was approved it would be the minimum necessary. Extractive activities such as artifact collection would be allowed, but no significant impacts to visual, vegetative or other resources would be permitted.

#### **Pottery Collection**

Collection of potsherds is prohibited by ARPA. Under the No Action Alternative, the BLM would make no special provisions to accommodate sherd collection for pottery temper by American Indians.

#### **Signs**

Small, inconspicuous antiquities signs would be placed carefully to avoid drawing unnecessary attention to sites, while still discouraging casual vandalism and to aid in prosecuting violators. (These signs are usually 9 inches by 12 inches in size and are placed at ground level.) Under Alternative A, signs would be placed at approximately 100 sites during the life of the plan.

#### **Access Easements & Consolidation of Ownership**

Where major archeological or historical values are located partially on public land, the BLM would seek legal access easements across key parcels of private land, and would attempt to

consolidate ownership from willing sellers. Examples of such areas include Cebolla Canyon and Cerritos de Jaspe.

#### **Cadastral Survey**

An important homestead-era structure, the Cebolla Canyon Schoolhouse, is located in Cebolla Canyon near the boundary between public and private land. This structure should be included in the stabilization program outlined below, but cadastral survey would be needed first to determine if it is on public or private land.

#### **Road Closure**

The BLM would close the 2-mile, two-track road leading into the Cebolla Canyon Community. Other access routes not identified for closure elsewhere in this plan could be closed if this was essential for resource protection.

#### **Formal Monitoring**

Formal photomonitoring programs have been initiated at the Dittert Site, Oak Tree Ruin, and Arroyo Ruin. This activity involves taking a series of identical photographs at intervals of 1 to 5 years so changes in site condition can be documented systematically. Under Alternative A, photomonitoring would continue at these sites with other sites potentially incorporated into the program as well.

#### **Stabilization**

The existing stabilization and erosion control projects at the Dittert Site, Oak Tree Ruin, Arroyo Ruin, Armijo Canyon Homestead, and Armijo Canyon Springhouse would be maintained. Stabilization and repair needs for ten homesteads in the Planning Area have been assessed (Gallagher and Goodall 1991), with recommended measures ranging from minor repairs to major stabilization, as well as an ongoing maintenance program. Under Alternative A, these recommended measures (or comparable ones designed to meet changed circumstances) would be implemented. New erosion control structures (e.g., checkdams, gabions) would be proposed for a dozen or so key properties to arrest natural deterioration.

Stabilization and erosion control measures would be allowed in wilderness, but only if resources unlikely to be duplicated elsewhere were threatened, and no other reasonable alternative existed. Such activities would be subject to the "minimum tool" requirement, and would not

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be allowed to degrade the area's overall wilderness character.

### **Fire Suppression**

Eight to twelve of the best-preserved homesteads would be singled out as high-priority fire suppression zones.

### **Special Designations**

The BLM would place no special priority on nominating properties in the Planning Area to the National Register of Historic Places. Possibly, four or five properties would be nominated during the life of the plan, perhaps as part of regional-scale thematic nominations (e.g. Chacoan Outliers, major Pueblo III sites, great kivas, or homestead-era schoolhouses). The Dittert Site could be added to the World Heritage List as part of the Chaco Culture listing.

### **Boundary Modifications**

No additions to the NCA or boundary modifications would be recommended under this alternative.

### **Public Interpretation**

The No Action Alternative provides for only limited public interpretation. A brochure would be developed for the Dittert Site, with a visitor registration box installed nearby. Similar measures could be taken for up to six historical homesteads, and the Ranger Station Nature Trail would feature the Ranger Station Reservoir. BLM staff would continue to organize interpretive hikes and visits to cultural resources properties such as the Dittert Site, Aldridge Petroglyphs, Ranger Station Nature Trail, and up to six homesteads on an occasional basis.

## **Issue 8--Wildlife Habitat**

Under Alternative A, the primary emphasis would be to maintain wildlife habitats in the proper quality and quantity necessary to support the existing populations within the area. Wildlife habitat projects (e.g., water developments, vegetative manipulation, fences) would be undertaken throughout the Planning Area. These projects (up to three annually) would generally be identified for areas where population-limiting factors occurred (e.g., deteriorating habitat), and are described below.

Prescribed fires and wildland fires under prescription would be used throughout the Planning Area to maintain wildlife habitats in the desired vegetative condition to support appropriate populations. These burns would range in size from 50 to 1,000 acres, but would average about 500 acres each. Sikes Act funding for projects would be used wherever appropriate.

Where appropriate, the BLM would work with the NMDG&F and the FWS to conduct feasibility evaluations for reintroducing native wildlife and/or plant species within the Planning Area. The NMDG&F has identified the adjacent National Monument as a high-potential area for reintroducing desert bighorn sheep, a state endangered species (NMDG&F 1995). The Ramah Navajos sighted the area's last bighorn sheep in the 1950s, and skeletal remains have been carbon dated to between 1950 and 1955. Four high-priority areas for transplants of these sheep exist in New Mexico; the National Monument ranks third, after the Fra Cristobal and Magdalena mountain ranges. It is estimated that the area could support as many as 100 animals. Because much of the National Monument is surrounded by the Planning Area, it is reasonable to assume that some reintroduced animals would use public lands within the Planning Area.

### **Water Developments**

Water catchments (guzzlers) come in many varieties, but most measure in the size range of 400 square feet (20 feet by 20 feet). In addition, an area 100 feet by 100 feet square is generally fenced to protect the water development from use by domestic livestock.



### **Vegetative Manipulation**

Vegetative manipulation can be accomplished using five main methods: livestock grazing management practices, prescribed fires and wildland fires under prescription, mechanical, chemical or biological treatments. Vegetative manipulation for wildlife enhancement would generally be accomplished through livestock grazing management practices and prescribed fires. However, one or more other methods could be used in specific areas where they would accomplish the desired vegetative response in a more acceptable manner.

**Livestock Grazing Management.** These practices would be used to ensure that livestock grazing is contributing to the accomplishment of the vegetative objectives. AMP/CRMPs would incorporate grazing rest periods for pastures, season-of-use changes, and range improvements (e.g., waters, fences).

**Prescribed Fires & Wildland Fires Under Prescription.** A portion of the existing vegetation (livestock/wildlife forage) within the treatment area would be consumed by fire. Individual burn plans would emphasize prescriptions to create a mosaic of different plant development stages throughout the vegetative community. To support the existing populations, the overall loss of forage would be minimized within any one allotment or wildlife habitat area.

**Mechanical Treatments.** No large-scale vegetative manipulation (e.g., chaining or clear cutting) would be undertaken within the Planning Area. Mechanical manipulation of vegetation would generally be limited to the use of chainsaws and other small equipment to remove saltcedar, rabbitbrush, sagebrush and piñon-juniper where vegetative or wildlife objectives have been identified. The areas of manipulation would *generally occur in* 50- to 100-acre plots, where *selection will be the primary harvest method*.

The project plans would emphasize prescriptions to create a mosaic of different development stages throughout the vegetative community, except where saltcedar control was needed. In these areas, all trees would be removed to the greatest extent possible.

### **ALTERNATIVE A**

**Chemical Treatments.** Approved Environmental Protection Agency (EPA) chemicals for the control of saltcedar, rabbitbrush, sagebrush and/or piñon-juniper

would be applied only by hand. No aerial application of chemicals would be undertaken within the Planning Area. A portion of the existing vegetation (trees, brush) within a treatment area would be removed, except in areas where saltcedar is to be eliminated as discussed above.

**Biological Treatments.** Many agencies and private companies are working on biological agents to help control exotic plants (e.g., insects that attack saltcedar). When these biological controls became available, they would be evaluated with other current methods to determine which vegetative manipulations were most appropriate for a specific project.

### **Issue 9--Vegetation**

Accomplishment of the vegetative objectives would require a comprehensive management program to include use of watershed, livestock grazing, fire, riparian, and forest and woodland practices. Under Alternative A, only livestock grazing and riparian management practices would be implemented.

Removal of trees to improve habitat, watershed and/or ecological condition is consistent with P.L. 100-225. However, no removal (thinning) of trees for resource improvement has been permitted since the NCA was established. Therefore, thinning of trees would not be considered under Alternative A.

To provide for improved livestock grazing use, AMPs/CRMPs have been developed for the Los Pilares, Techado Mesa and Los Cerros Allotments, and are scheduled for completion in 1998-99 for the Cerro Brillante and El Malpais Allotments. These plans would be periodically reviewed and revised as needed. Based on the results of monitoring, new plans would be developed and/or livestock grazing use reduced. The minimum livestock grazing rest period provided in the management plans would be May 15 to June 30 and July 1 to September 15 each year. At least one pasture per allotment would be rested during each period.

New range improvements (waters and fences) to facilitate rest from livestock grazing would be considered for grazing allotments (with or without an AMP/CRMP). A site-specific EA would be completed for any approved range improvements.

On the east side of the NCA, the BLM has fenced the riparian area surrounding Cebolla Spring to exclude livestock grazing. Spring areas used by livestock would continue to be fenced, and would be developed to provide

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water for livestock and wildlife away from riparian areas. Springs not used for livestock water would remain unfenced. Riparian vegetation would not be planted under Alternative A, nor would treatments to remove exotic species such as saltcedar and Russian olive from riparian areas be permitted.

A Fire Management Plan is scheduled to be completed after this El Malpais Plan is finalized. Until this fire plan is completed, all wildfires in the Planning Area will be suppressed. The fire plan will allow for prescribed fires and wildland fires under prescription for fuels management, protection of private property, and (secondarily) vegetation management. Up to three fires ranging in size from 50 to 1,000 acres each would be expected each year.

Watershed management practices (e.g., structures and vegetative treatments) would provide for accomplishment of vegetative objectives. Since passage of P.L. 100-225, grazing permittees have built two small diversion dikes. In addition, small erosion control structures were constructed to protect an archeological site. Construction of other small structures to spread or divert water would be considered under this alternative. The treatment of noxious weeds would be allowed under this alternative. Control of noxious weeds (e.g., knapweeds, bindweed, leafy spurge, thistles) would be by mechanical, chemical or biological means. Site-specific EAs would be completed before any structural or noxious weed treatment.

### **Issue 10--Boundary & Land Ownership Adjustments**

Under Alternative A, the BLM would not recommend to the Congress any changes in the NCA or Cebolla Wilderness boundaries. The total size of the NCA would remain at 262,100 acres (refer to Table 1-1 in Chapter 1 and Map 30). The Acoma Pueblo's request to exclude 960 acres of tribal lands from the NCA and Cebolla Wilderness would not be recommended to the Congress. The 24,200 acres outside the NCA boundary but within the Planning Area (Brazo and Breaks Non-NCA Units) would be managed under the Rio Puerco RMP. The 15,100 acres now managed by the Socorro Field Office (Tank Canyon-SFO and Techado Mesa-SFO Units) and 4,000 managed by the Albuquerque Field Office (Cerro Brillante-AFO and Continental Divide-AFO Units) would not be recommended as additions to the NCA, and would continue to be managed under the Socorro RMP and Rio Puerco RMP, respectively.

The acquisition priorities identified in the NCA Land Protection Plan (USDI, BLM 1989) would remain the same. These are based on the legislative intent and direction established by P.L. 100-225, which directs the BLM to acquire land and mineral rights to protect important natural, cultural, and scenic values within the NCA. However, the law does not direct the agency to consolidate all land within the NCA into federal ownership. (A summary of the Land Protection Plan priorities, rationale and status is included in Appendix H.)

The 22,000 surface acres of public lands in the Planning Area outside the NCA (Breaks and Brazo Non-NCA Units) would remain open to the public land laws, mineral exploration and development.

### **Alternative B--Resource Use**

BLM management under Alternative B, the Resource Use Alternative, would support direct human actions. Economic uses such as grazing and recreational use served by outfitters and concessionaires would be emphasized. More developments related to recreation, livestock, and wildlife are proposed, and extractive activities such as archeological excavations and collection of potsherds by American Indians would be allowed. A large number of existing roads would remain open under this alternative, and vegetative management would include prescribed fires, wildland fires under prescription, and seedings. ***Livestock developments could be made if management changes were needed as indicated by monitoring and NEPA compliance needs were met.***

### **Issue 1--Recreation**

Under Alternative B, the BLM would provide recreation users of the Planning Area with semi-primitive nonmotorized, semi-primitive motorized, and roaded natural settings (as identified by the ROS classification system and displayed on Map 7). The acreage within these opportunity settings would be similar to that identified for the No Action Alternative (refer to Table 2-6). Increased development would be undertaken to facilitate activities taking place in the Planning Area, e.g., camping, picnicking, horseback riding, hiking and sightseeing. Opportunities to participate in such activities as hunting, mountain biking, back-country driving, exploring and learning about historical and archaeological sites would also exist. Recreational activities of interest to smaller populations, such as caving, climbing, skiing,

shooting, trapping, photography, pack trips, enjoying wilderness solitude, and road biking would continue to be offered.

Interpretive messages would be included on informational kiosks and wayside exhibits at recreational access points, picnic areas and trailheads. Locations with messages would include the NCA entry sites, the Narrows Rim Trail and Picnic Area, West Malpais Wilderness, CDNST, Dittert and other archeological and historical sites, the Ranger Station and others. More guided interpretive hikes would be offered than under Alternative A.

One developed campground would be built on the east side, and dispersed camping would be allowed throughout the remainder of the Planning Area. Camping at other BLM developed facilities would be prohibited. The NPS plans to develop a few camping units in the National Monument; these would serve campers on the west side of the Planning Area with a preference for developed or semi-developed sites.

Picnicking would be allowed to occur almost anywhere in the Planning Area. Such opportunities would be enhanced through upgraded facilities at the southern end of The Narrows, and developed facilities at La Ventana Natural Arch and the Cerro Americano CDNST trailhead.

The BLM would increase opportunities for trail hiking and associated activities by establishing up to 20 additional trails (5 now exist). This would result in an estimated 77 miles of trail, including the 25-mile-long CDNST (refer to Map 11). These additional short trails would provide more convenient access to selected natural, cultural, and historical features or links with other established trails in the Planning Area. In addition to the established trail system, approximately 19 miles of closed vehicle routes would be available for use as informal hiking trails.

***Until easements through non-Federal lands on the selected route for the CDNST within the Planning Area can be obtained, hikers and equestrian users would be directed to use other trails, vehicle routes, closed vehicle routes or to travel cross-country as ways of going around non-Federal lands to link with other segments of the CDNST.***

The new trails would lead to the Dittert Site, Aldridge Petroglyphs, Lobo Canyon Petroglyphs, Armijo Canyon Homestead and Springhouse, Stone House, three other selected homesteads, the West Malpais Schoolhouse, the

Pinole Site, the Citadel, and the Cebolla Canyon Community. Others would connect as side ***or loop*** trails with established trails or intersect with the ***trails*** from established trailheads. Other newly established trails would provide hiking opportunities to lava tubes in the Chain of Craters and the natural features of Cerro Americano, Cerro Brillante, and La Rendija. A short loop trail extending from the campground in the Spur Unit would also be established.

The BLM would provide additional horseback-riding facilities and upgrade existing ones. For use on the east side of the Planning Area and the Cebolla Wilderness, facilities and horse gates would be provided at The Narrows and Armijo Canyon trailhead. On the west side, facilities would be provided at the Cerro Brillante trailhead and near the end of the cherry-stemmed road leading to Hole-in-the-Wall.

Designated vehicle travel routes in the Chain of Craters, Cerritos de Jaspe and Brazo Units would be promoted as routes for mountain bike

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use. These routes are not as heavily traveled by motor vehicles as some others in the Planning Area. (Note: The Chain of Craters WSA would be promoted for use only if released from wilderness review by the Congress. Mountain bike use would not be promoted while the area was in study status.) Approximately 166 miles of designated vehicle routes would be available for mountain bike use in these units, with a variety of experiences and levels of difficulty. These would provide a system of loop trails.

Approximately 338 miles of BLM-designated vehicle routes would be available for sightseeing, driving for pleasure, or back-country driving. Under Alternative B, four Back Country Byways would be designated to encourage driving where high scenic, historical or other public-interest values existed. To enrich visitors' recreational experience, the BLM would identify 15 areas or stretches along roads such as seasonal playas or cliff faces for wildlife viewing.

### **Visual Resource Management**

The VRM Class objectives would continue to be the basic tools for managing visual resources on public lands. Map 15 displays the VRM classes the BLM would assign to the public lands within the Planning Area under Alternative B (refer to Table 2-8). The RMP would be amended by adjusting some previously assigned classes, and by assigning classes to those acquired lands outside the NCA not covered in previous land-use planning.

To emphasize the maintenance of natural values, the BLM would continue its policy of assigning VRM Class I to all designated wilderness lands, included the expanded portions of the Cebolla Wilderness. The assignment of VRM Classes II and III to lands outside wilderness would allow for limited to moderate levels of change to the basic elements of form, line, color, and texture found in the predominant natural features, while still affording protection of the scenic values in the Planning Area.

The BLM would provide for more resource use opportunities and facility development by reassigning 24,330 acres from the more restrictive Class I to the less restrictive Class II, (including acreage within the Neck, Cerritos de Jaspe, Cerro Brillante and Continental Divide Units). Under Alternative B, the BLM would assign VRM Class III to 14,110 acres of public land to accommodate resource use and moderate levels of visual change. The existing lands under Class III objectives in the southwest corner of

the Cerro Brillante Unit and northern portion of the Neck Unit would remain under this classification. The 60 acres of public land immediately surrounding the Ranger Station on NM 117 would also be included as VRM Class III lands. (The Ranger Station is located on a parcel of state land acquired since the passage of P.L. 100-225; this parcel therefore was not assigned a VRM Class in the RMP.) To maintain the scenic values in the remainder of the Planning Area as required in P.L. 100-225, the BLM would manage it under assigned VRM Class II objectives.

### **Issue 2--Facility Development**

As stated above, under Alternative B the emphasis for recreation would be on facilities to support developed opportunities such as picnicking, camping, hiking, horse-back riding, mountain-bike use, caving, wildlife watching, and opportunities to explore and learn about historical and archeological sites. Most of the new development would be for trails, trailheads, parking and a campground. (Proposed developments are shown on Map 11.) The BLM would also upgrade some existing facilities. Interpretation would occur through one-on-one contact with visitors (in public programs, guided hikes, or visitor center contacts); printed brochures, exhibits, interpretive media and publications at the Ranger Station; wayside exhibit panels; and self-guided trails with interpretive signs and/or kiosks.

The agency would develop a campground in the Spur Unit. (The exact location would be determined after cultural resources surveys, T&E surveys, and site investigations were completed.) The facility would be designed to accommodate up to 40 units for single-family use and one unit for multi-family or group use over an area up to 10 acres in size. In addition to a table, cooking facilities and a leveled space for a tent, each single-family unit would have a leveled parking spur large enough to accommodate either a small, self-contained recreational vehicle or a vehicle with a trailer or tent camper. Parking for the group-use unit would be of sufficient size to accommodate visitors.

Two universally accessible vault toilets would be constructed within the campground, and if possible, drinking water would be provided. A 50-person amphitheater for interpretive and environmental education programs would be built within a 5-minute walk of the campground. The agency would conduct evening programs regularly during the summer.

The BLM would upgrade an existing dirt road provid-

ing access from NM 117 to an all-season, gravel condition. Within the campground, roads and parking would be surfaced for all-weather use. In conjunction with the campground, the agency would construct a ½-mile hiking trail that would loop through adjacent lands as it passed the amphitheater.

Under Alternative B, the BLM would develop additional trails and trailheads for resource protection, and to distribute visitors to the back country and selected features. The Cerro Brillante trailhead for the CDNST would be used for hiking access to the West Malpais Wilderness. From the Cerro Brillante trailhead, a trail would be marked to the old schoolhouse in the West Malpais Wilderness. The BLM would also develop trails from other trailheads and vehicle pullouts to the Lobo Canyon Petroglyphs, La Rendija, Cerro Rendija, and Cerro Americano. If "social trails" (paths developed as the result of continual undirected visitor use) exceeded the established LAC standards for trails in an area, the agency would consider developing them.

With most of its length in the Cebolla Wilderness, the Narrows Rim Trail would be improved using the minimum tool technique to facilitate resource and wilderness protection, and to help direct visitor use to a single pathway. The BLM would provide parking for up to 20 vehicles at the trailhead to accommodate hiking and horse access to the Cebolla Wilderness and the trail. The parking lot would be paved and located south of the picnic area. The trailhead facilities (including a kiosk) located outside the wilderness boundary would be built of rustic materials, and the trail would be marked as allowed in wilderness. Horseback riders at this trailhead would continue to be served by a horse-accessible gate. (Refer to Figure 2-d for a possible design of these facilities.)

For access to the West Malpais Wilderness and use of the informal Hole-in-the-Wall Trail, the BLM would establish a rustic-style trailhead with a kiosk, gravel parking lot, and horse facilities at the end of the cherry-stemmed road. The parking area would be built to accommodate up to 20 vehicles. (Refer to Figure 2-e for a possible design for these facilities.)

Alternative B would include the construction of trailheads with rustic facilities along the CDNST at Cerro Americano and Cerro Brillante. Each would contain a kiosk and graveled parking area for up to 30 vehicles. The trailhead at Cerro Brillante would provide for horse use.

(Refer to Figure 2-e for a possible design of these facilities.)

Mountain-biking facilities would be provided at the Cerro Americano CDNST trailhead. Trailhead facilities to accommodate mountain-bike users in the Cerritos de Jaspe and Brazo Units would be built only if mountain bike routes were established there.

The BLM would develop picnic areas at La Ventana Natural Arch and the Cerro Americano CDNST trailhead. The developments would be designated for day-use only. Up to ten walk-in units for single-family picnicking would be scattered from the edge of the parking area at each of these sites. A vault toilet and water source, if possible, would be developed at Cerro Americano.

The agency would develop The Narrows for day use, with up to 20 sites, paved access and vault toilets. If possible, the BLM would develop a drinking water source. (Refer to Figure 2-d for a possible design.)

The BLM would designate four back country byways, the NM 117-CR 42-NM 53 loop drive, and routes in the Brazo, Cerritos de Jaspe, and the Chain of Craters Units. The agency would work in partnership with other agencies to promote these byways. For each byway, between one and four

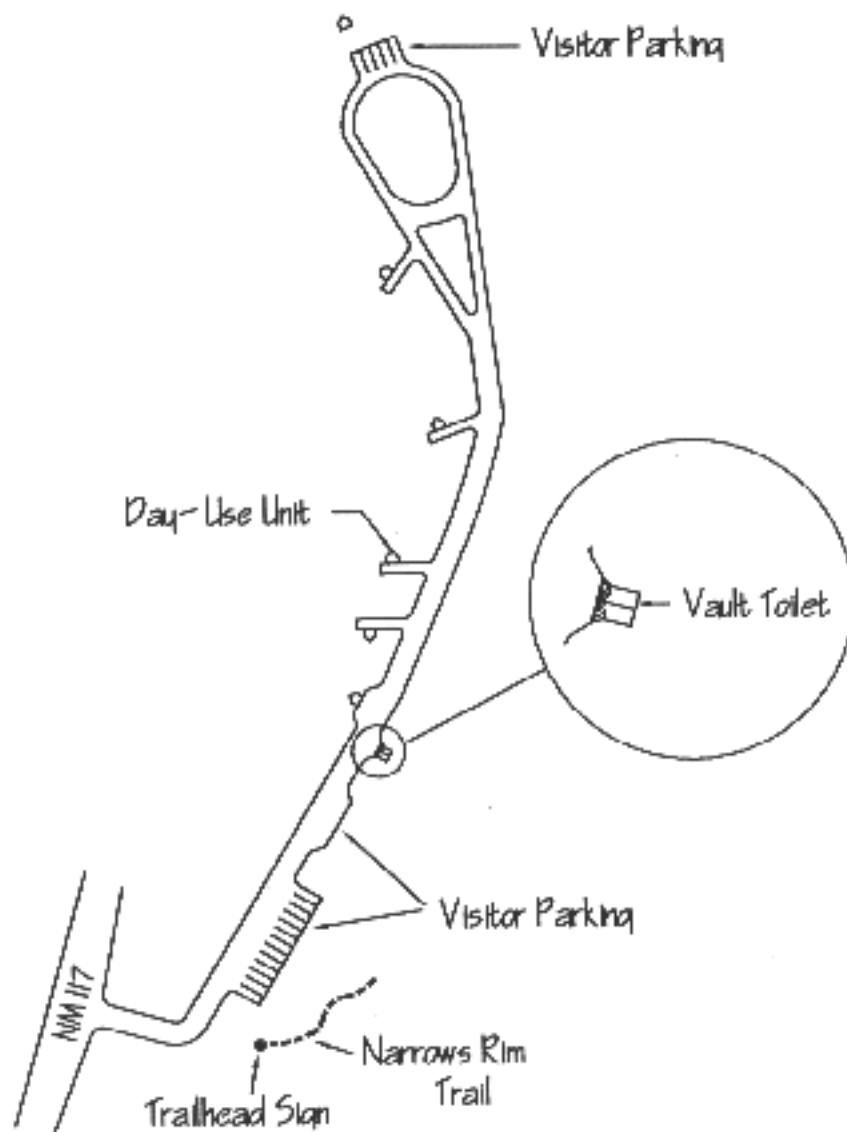


Figure 2-d  
The Narrows Day-Use Recreational Site

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.

signs and between one and four kiosks would be installed and maintained (refer to Figures 2-c and 2-f, and to Map 11 for locations). The typical sign dimensions would be 3 feet high by 5 feet wide, with the full height (including support posts) at 6 feet.

In addition to the existing trail at the Ranger Station that passes by the reservoir, the BLM would develop a self-guided interpretive trail to another prehistoric cultural site and a homestead. A trailhead with a kiosk and surfaced parking for up to 10 vehicles would be constructed at the beginning of the trail. (Refer to Figures 2-g and 2-h for possible designs of such a facility.) Roads accessing these trailheads would be upgraded if needed to an all-weather, graveled condition. Primitive trailheads would be developed at the following cultural/historical properties as time, staff and budget allowed: the Pinole Site, The Citadel, Cebolla Canyon Community, Lobo Canyon Petroglyphs, Aldridge Petroglyphs, Stone House and other deserving properties.

The BLM would develop the Dittert Site to provide for recreation and interpretation. The agency would upgrade the access road, and install a surfaced parking lot (built initially for up to 25 vehicles, but expandable). At the trailhead for the Dittert Site, Cebolla Wilderness, Armijo Canyon Homestead and Springhouse, the agency would develop horseback riding facilities, a self-guided trail to and around the site, a kiosk and toilets. The trailhead would be fenced to confine use and protect resources. (Refer to Figure 2-i for a possible design and layout of these facilities.)

The agency would use three to five interpretive kiosks at Planning Area entry points to promote stretches of highways and roads for watchable wildlife. Watchable wildlife signs would be installed along CR 42, NM 53, and NM 117. The Cerro Americano trailhead kiosk would be used as another location for highlighting wildlife viewing opportunities (refer to Map 11).

The BLM would build between three and five larger identification signs at entry points along major highways and roads in the Planning Area, as

shown on Map 11. Additional identification signs would be posted as indicated by public comment or to eliminate confusion. These signs would typically measure 4 feet high by 8 feet wide, and stand 8 feet tall (including support posts). The agency would develop and install one large identification sign on each side of I-40 in Sec. 16, T. 10 N., R. 9 W. for viewing from the interstate. Typical measurements for these signs would be 8 feet by 16 feet, with a total height of 10 feet, and a rock base approximately 3 to 4 feet wide by 16 to 20 feet long.

The agency would construct pullouts and develop interpretive kiosks at three to five NCA entry locations, as shown on Map 11. These locations would include the northern end of NM 117, the junction of NM 117 and CR 42, the western entrance along NM 53, the southern entrance along CR 41, and the first public land encountered along NM 53 (Sec. 16, T. 9 N., R. 10 W.). (Refer to Figure 2-f for possible design and layout of these kiosks.)

New facilities would be designed and built to have a consistent appearance throughout the Planning Area, and would blend with the area's surrounding landscape and local architectural styles.

### Issue 3--Access & Transportation

Under the Resource Use Alternative, the opportunities for motorized access would be maximized to the extent allowable using existing routes. Opportunities for nonmotorized access would continue to be made available.

Motorized vehicle use on 143,550 acres (58 percent of the Planning Area) would be "limited" (refer to Table 2-10). (This would include lands not previously addressed in the RMP, and those designated as open through the RMP.) This restriction, which formerly limited motorized travel to *existing* roads and trails, would be changed to limit such travel to *designated* roads and trails. The remaining public lands within the Planning Area would be managed as "closed" because of wilderness.

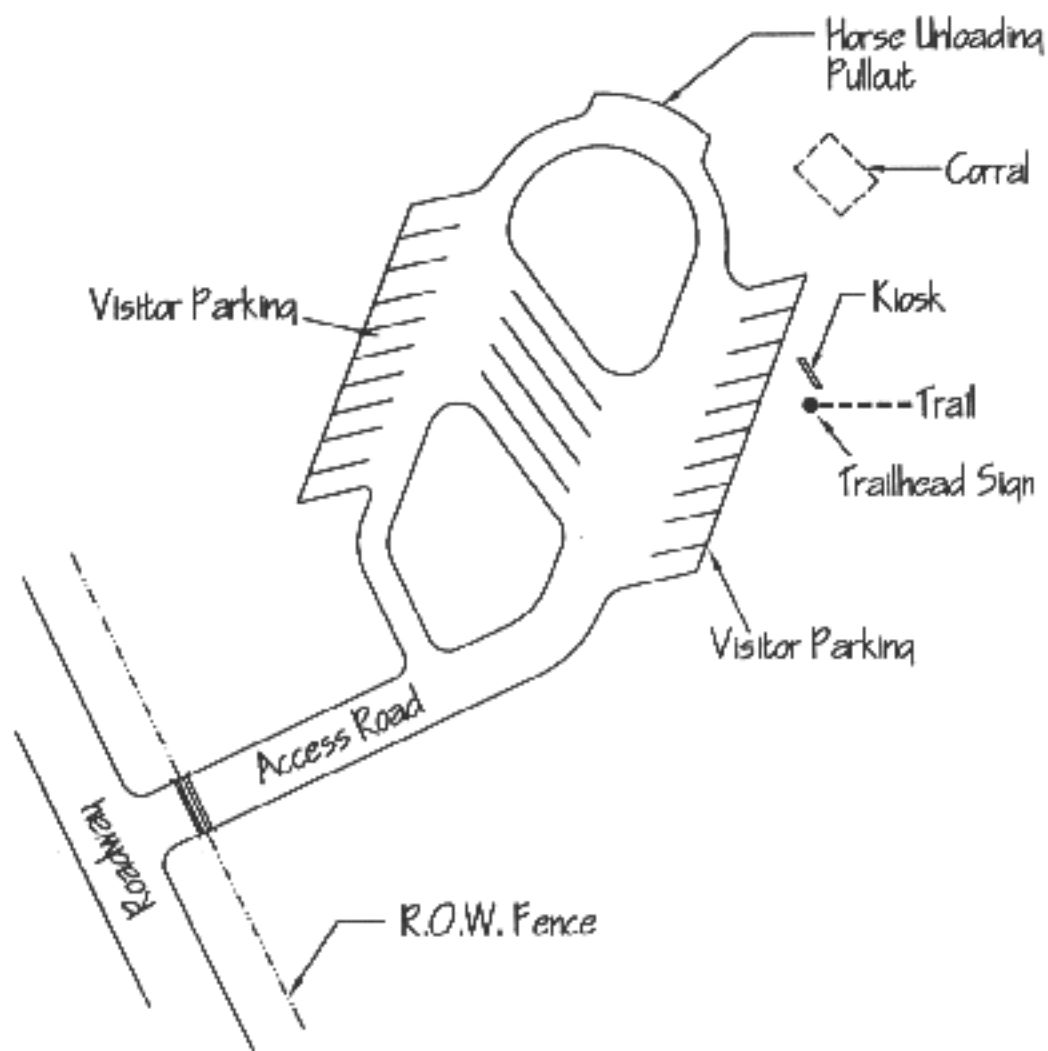


Figure 2-e  
Typical Trailhead Facility  
to Accommodate Horseback Riders

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.



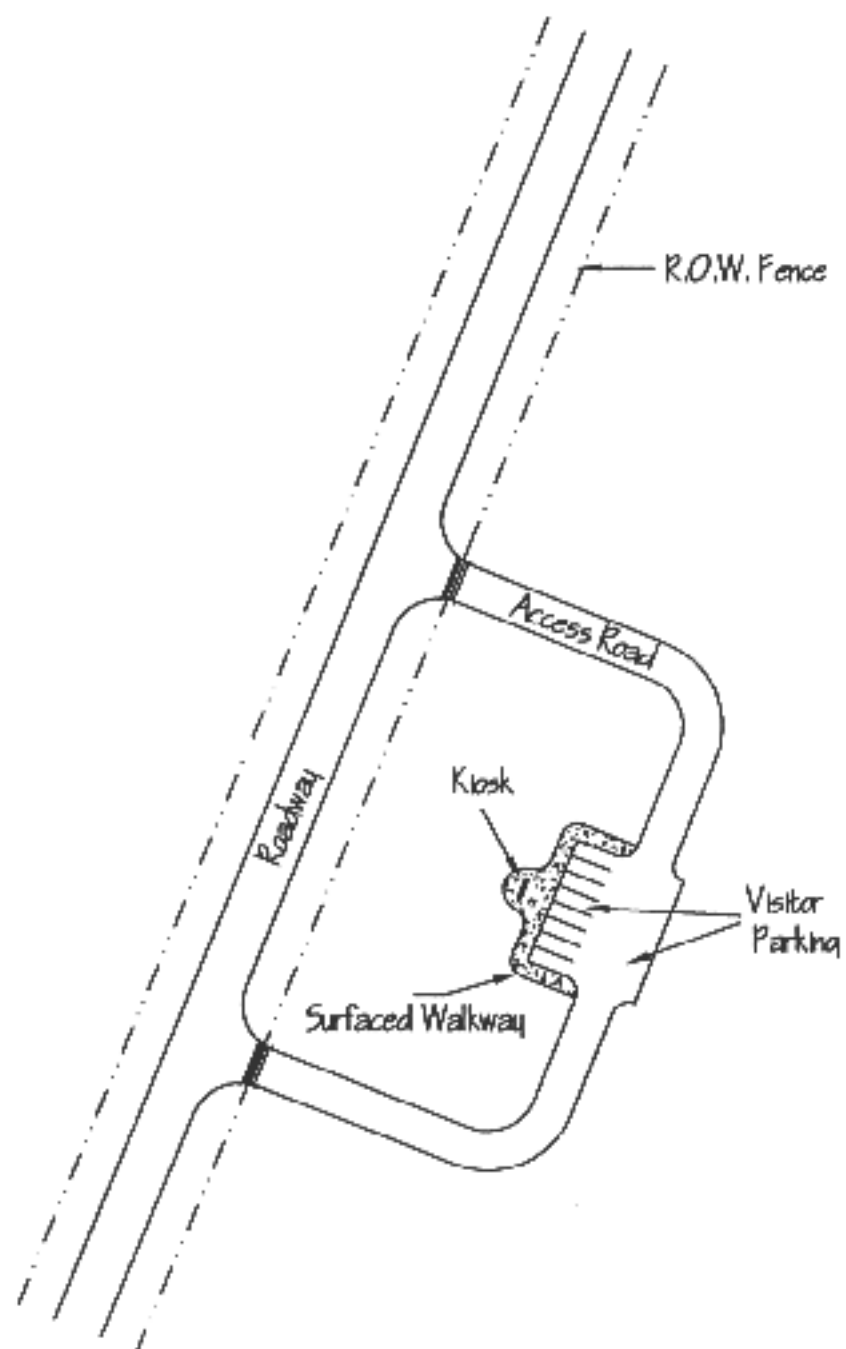


Figure 2-f  
Typical Kiosk

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.

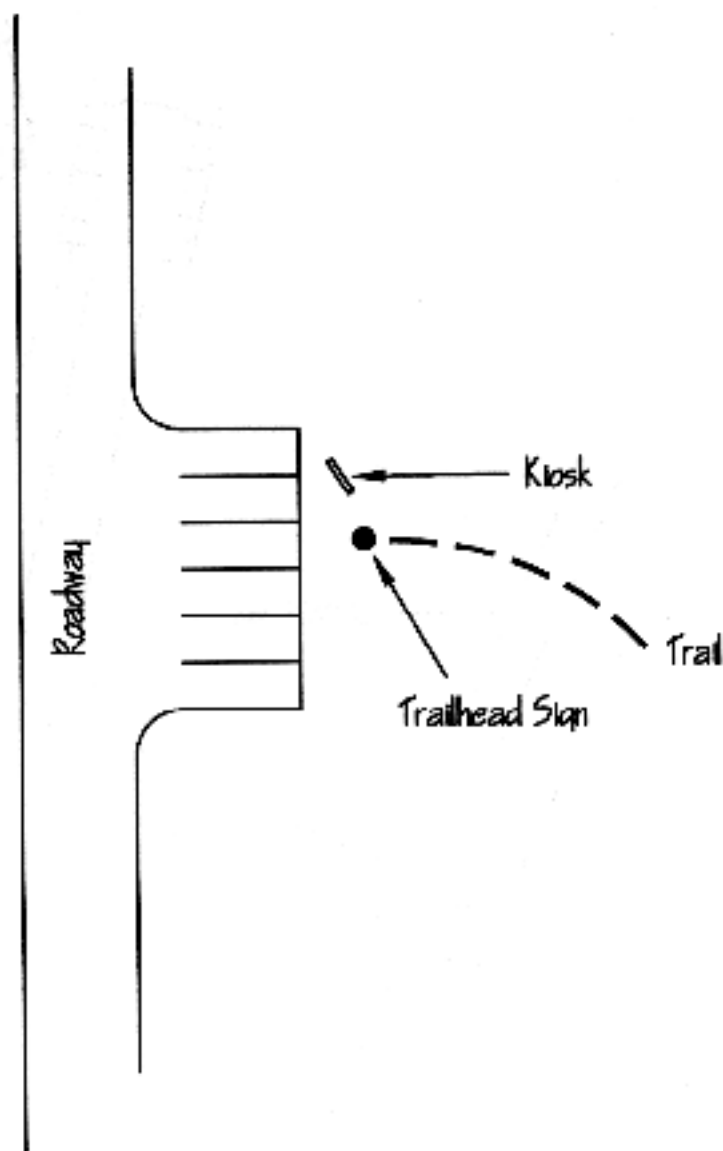


Figure 2-9  
Typical Pullout Trailhead Facility

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.

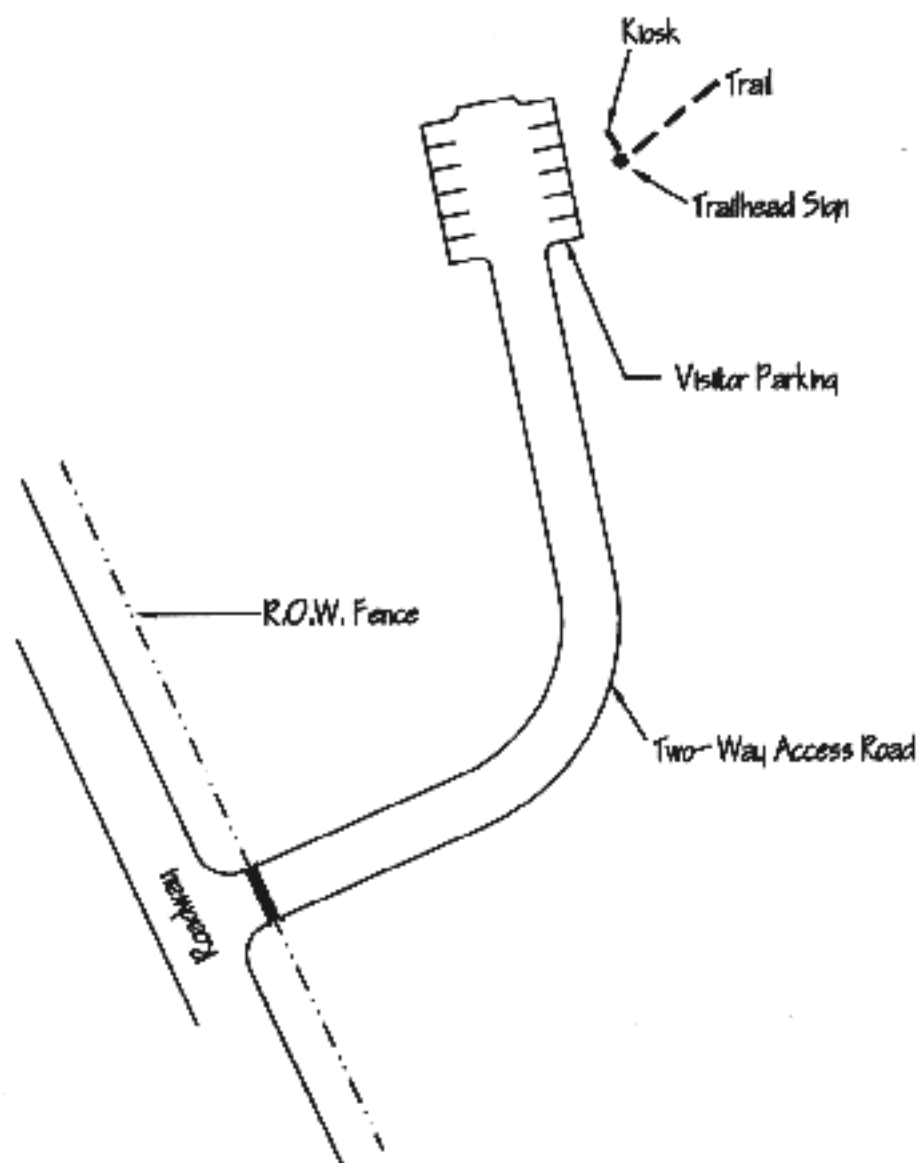


Figure 2-h  
Typical Off-Roadway Trailhead Facility

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.

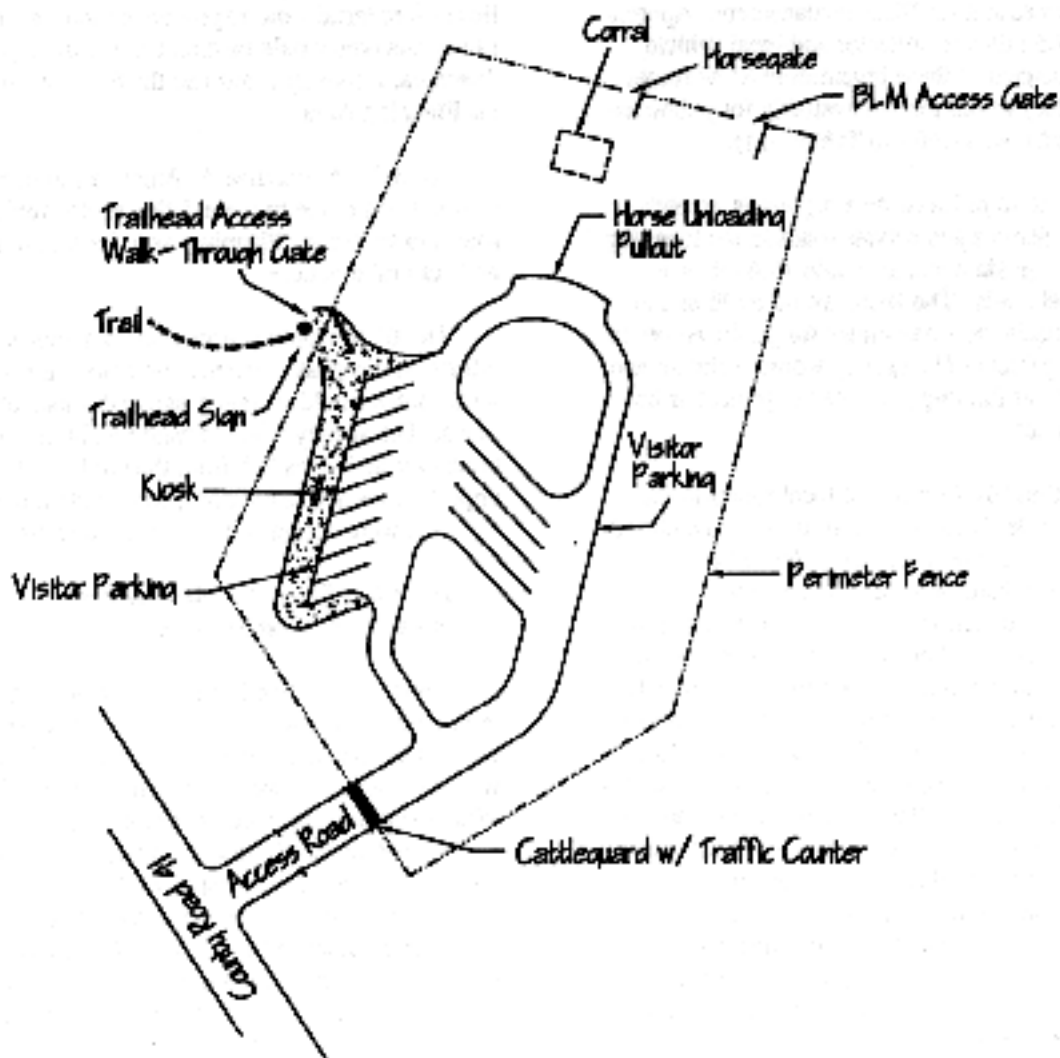


Figure 2-1  
Dittert Site Trailhead Facility  
to Accommodate Horseback Riders

This figure is an example of a preliminary concept. It is shown for informational purposes only, to give an idea of the potential development of this facility or site.

The number of inventoried routes left open for motorized vehicle use outside wilderness would be maximized. These roads, as shown on Map 19, would be those best suited and located for public use of the resources and for BLM management. Approximately 337.5 miles of collector and local vehicle routes (93 percent of these inventoried BLM routes now available) would remain available for public use as designated routes (refer to Table 2-11).

A total of 76 miles of state highways, county, U.S. Forest Service and private roads in the Planning Area would remain open, as would 18.4 miles of BLM arterial roads. The BLM would build no new roads nor acquire new easements for public access to public land parcels. The agency would maintain and reroute roads as funding permitted to protect or improve resources.

Approximately 17 miles of local routes in the NCA and 2 miles in non-NCA units would be closed to vehicle use. These would be reclaimed through natural and mechanical means to bring them back into resource production. Of the roads closed in the NCA, 2.3 miles would be within the Chain of Craters, 2.8 miles in the Spur, 7 miles in the Continental Divide, 2.4 miles in the Cerritos de Jaspe, 1.8 miles in the Breaks, and .3 mile in the Brazo Unit. Outside the NCA, inventoried vehicle routes in the Brazo (1.9 miles) and Breaks (.5 miles) Non-NCA Units would be closed. Vehicle use, except as authorized, would be prohibited on closed routes. Routes to be closed would be those abandoned or not showing signs of regular or continuous use during the most recent inventory (1996), and those duplicating other routes that serve the area, causing resource damage, or serving no apparent need.

Vehicle use would continue to be authorized on 6.3 miles of routes outside wilderness and 23.3 miles of routes within wilderness. All other use of motor vehicle and mechanical transport by the general public would be prohibited on the 104,450 acres of designated wilderness. (Note: For analytical purposes, it has been assumed that under Alternative B, the Congress would not designate the Chain of Craters WSA as wilderness and would release it from further study. Therefore, motor

vehicle use of the area would still occur on designated routes.)

Access to public land within the Planning Area by cross-country, nonmotorized means, (e.g., horseback, backpacking, hiking) would be allowed to continue, except for mountain bike use in wilderness. Because of terrain and vegetative conditions, most use of this type would be directed to existing or abandoned back-country roads and the few trails within the Planning Area.

As under Alternative A, American Indians would continue to be able to use existing motor vehicle routes to access the Planning Area for traditional uses and cultural practices.

The BLM would concentrate its maintenance efforts on designated arterial and collector routes, so local routes would remain rough and impassable at times. The agency would develop additional maps, brochures and signs to inform the public of the access opportunities and restrictions, and would maintain the signs marking designated routes and directing users.

#### **Issue 4--Wilderness Management (Cebolla & West Malpais)**

Under Alternative B, the BLM would emphasize improved opportunities for users to access wilderness without diminishing the areas' character. The agency would recommend two adjustments to the Cebolla Wilderness boundary, the first to include an additional 3,650 acres of contiguous public land (shown on Map 26). At the request of Acoma Pueblo, the BLM would also recommend to the Congress that the boundary be amended to exclude 160 acres of formerly private land acquired by the pueblo. Located in Sec. 12, T. 7 N., R. 10 W., these are aboriginal lands claimed by Acoma that have recurring value to their people. These lands are adjacent to other Acoma lands excluded from the Cebolla Wilderness when the existing boundary was defined.

When the wildernesses were accessible to the public, BLM staff and volunteers would continue to patrol them once a month at minimum. More frequent patrols would occur during the spring through fall seasons, when use was greater.

The areas would continue to be used by the public for primitive types of recreation that did not require the use of

## CHAPTER 2--ALTERNATIVES

motor vehicles, motorized equipment or other forms of mechanical transport such as mountain bikes. Authorized users could continue to access non-federal inholdings and livestock grazing operations by motorized vehicle over 5.5 miles of routes in the Cebolla Wilderness and 17.8 miles in the West Malpais Wilderness. Livestock grazing access and use would continue under P.L. 100-225 and the conditions set in the BLM RIM plans (1990, revised 1996) and AMPs/ CRMPs for the individual allotments overlapping these two areas. The BLM has selected routes that would cause the least impact to the areas' wilderness character while serving the purposes for which the land was held or used.

The existing facilities on the wilderness perimeters along with trail improvements for recreation users and resource protection purposes, would remain in place for continued use and protection. La Ventana Natural Arch, The Narrows and Armijo Canyon would continue to serve as primary access points to the Cebolla Wilderness. The Dittert Site and The Narrows would be improved to accommodate visitors. Two roads would receive more frequent maintenance to control erosion and improve access. These are the Cebolla Canyon Road (No. 2003) that splits the Cebolla Wilderness, and the Sand Canyon Road, a dead-end cherry-stemmed road. The Narrows Rim Trail, which extends 3.5 miles into the wilderness, would be better marked to direct visitor use.

For the West Malpais Wilderness, the trailhead at the end of the cherry-stemmed road from CR 42 would continue to serve as the primary access point. Access to the trailhead and the trailhead itself would be improved to accommodate visitors and horseback use. The BLM would continue to identify a user access trail that follows an old vehicle route leading into the Hole-in-the-Wall, a major attraction of this wilderness.

At La Ventana Natural Arch, the BLM would continue to provide permanent restroom facilities and a paved parking lot. Other facilities at trailheads and other entry points would be upgraded to improve access opportunities, services and information. Additional onsite information would be provided to better inform and educate the public about the areas and their use, including during patrols. Signs would identify the boundaries, the wilderness name, and some regulations governing use of the areas. Information about the areas would continue to be available at the Ranger Station on NM 117 and BLM offices in Grants and Albuquerque, and would be given through personal contact

when BLM staff and volunteers encountered visitors during area patrols.

Traditional American Indian cultural practices would be allowed to continue in the two areas in a manner consistent with the intent of the Wilderness Act. Motor vehicle access to the perimeter of each wilderness would be allowed, but such use inside the wilderness would be prohibited, unless the BLM has granted prior authorization after consultation and evaluation. When the BLM authorized such use of motorized vehicles by American Indians, stipulations to control impairment of wilderness character would be met. Upon request, the BLM would temporarily close the smallest practicable area for the minimum period needed to accommodate American Indian activities.

In most instances, cultural and historical resources would be subject to the forces of nature in the same manner as other wilderness resources. Stabilization and scientific studies of selected cultural resources and historical sites within the two wildernesses would continue as required to meet protection and preservation mandates. Research would be authorized if it could be carried out unobtrusively using methods compatible with preserving the areas' wilderness character.

Except for guided trips, visitor information and education programs about sites within wilderness would be located outside the wilderness boundary or dispersed at other outside locations. Additional interpretive information about the Dittert Site, which is located within the boundaries of the Cebolla Wilderness, would be placed at the trailhead outside the boundary in Armijo Canyon. No additional onsite interpretation would be provided, although site maintenance and monitoring would continue.

Wildlife habitat management would continue to be guided by the BLM's Wilderness Management Policy. Hunting and trapping would be permitted, subject to applicable state and federal laws and regulations. Use and maintenance of the two wildlife exclosures and the one water catchment would be allowed to continue. The exclosures would be maintained using the "minimum tool" concept, with restricted vehicle access and use of motorized equipment.

Vegetative treatments would be considered on a case-by-case basis in accordance with the BLM's Wilderness Management Policy. Fires would be controlled to prevent their spread to areas outside wilderness, the loss of human

life or property. BLM fire suppression methods would be designed to cause the minimum adverse impact on wilderness character.

The BLM would continue to seek acquisition of wilderness inholdings from willing sellers, including approximately 300 acres of private surface in Cebolla (not to include 160 acres of Acoma aboriginal land) and 500 acres in West Malpais. Priority would be given to those lands that were undeveloped or where use would pose a threat to wilderness character. When acquired by the BLM, these lands and any subsurface (mineral) interests would be managed under wilderness restrictions.

#### **Issue 5--Wilderness Suitability**

##### **Chain of Craters WSA**

Under Alternative B, the BLM would not recommend the WSA as suitable for wilderness designation. For analytical purposes, it is assumed that the Congress would accept this recommendation and release the area from further wilderness study. The resources in the 18,300-acre Chain of Craters would then be managed and protected under this plan amendment, and restrictions on uses of the area would no longer apply. Users would have opportunities for roaded natural types of recreation on 7,800 acres, semi-primitive motorized types on 6,800 acres, and semi-primitive nonmotorized types on 3,700 acres.

##### **Lands Contiguous to the Cebolla Wilderness**

The BLM would recommend for inclusion approximately 3,650 acres of public land contiguous to the Cebolla Wilderness (refer to Map 26). Until the Congress designated or released these lands, the agency would manage them under the Interim Management Policy (except for minerals). Any land formerly designated as wilderness would be managed under BLM Manual 8560 (Management of Designated Wilderness Areas) and the regulations at 43 CFR 8560. A total of 6,730 acres recommended as non-suitable for designation would be managed by the BLM under the management prescriptions identified in this alternative and applicable to this area.

#### **Issue 6--American Indian Uses & Traditional Cultural Practices**

BLM management of this issue under Alternative B would be the same as discussed above for Alternative A. Although the BLM has formulated no specific actions related to these practices, the agency has considered them in developing actions under Alternative B for other issues (e.g., Issue 7 below).

#### **Issue 7--Cultural Resources**

Under Alternative B (Resource Use), the BLM would emphasize the information potential of archeological sites in the Planning Area, encouraging archeological research and seeking to preserve properties for this purpose. Significantly increased stabilization and inventory activities would be undertaken. The actions proposed under this alternative would be feasible at funding levels available in recent years, but would require that more of the available BLM funding and personnel be directed to the NCA, and less be directed toward management of cultural resources elsewhere on Albuquerque Field Office lands.

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### **Use Allocation**

The following properties would be managed for public values and allocated to public use: Cebolla Canyon Community (including Oak Tree Ruin and The Citadel), Pinole Site, Dittert Site, Ranger Station Nature Trail, Lobo Canyon Petroglyphs, Aldridge Petroglyphs, Armijo Canyon Homestead, Armijo Canyon Springhouse, Cebolla Canyon Schoolhouse (if found to be on public land), Stone House, West Malpais Schoolhouse, Rowe Homestead, and Worley Homestead. These sites would be available for public interpretation.

Other prehistoric and historical sites would be managed for information potential and allocated to scientific use. These sites would be protected in their current condition, but would be available for scientific investigation. Any site could be shifted from scientific use to public use if needed for an interpretative program, and if adequate measures were taken to protect its information potential and scientific value.

### **Compliance with the National Historic Preservation Act**

Because recreational activities would be emphasized under this alternative, secondary impacts would be of special concern. In addition to the routine Class III inventories (noted above in "Management Common to All Alternatives"), the BLM would require an inventory over an area of at least ¼ mile around each proposed visitor use development or cluster.

### **Inventory & Baseline Condition**

To identify areas vulnerable to looting, vandalism, and natural deterioration, and to document their baseline condition, the BLM would adopt an aggressive inventory program in the Planning Area. Inventories would include sample surveys, intensive surveys of areas with known, high site densities, and those targeting rock art and homesteads. The agency would attempt to achieve Class III inventory of 5 percent of the NCA (13,105 acres of new inventory) during the 15- to 20-year life of this plan.

### **Scientific Investigation**

Under Alternative B, the BLM would encourage scientific uses, including investigations that would result in alteration of the physical site characteristics. However, any such proposal would still be subject to consultations with local American Indians and compliance with NHPA. The BLM would also continue to ensure that all such projects met current professional standards, and that adequate provisions were made for analysis, write-up and curation of any collected materials. Over the life of the plan, five to eight such projects would be expected.

Scientific investigations in wilderness would conform to the "minimum tool" standard, i.e., motorized vehicles and equipment would be prohibited unless no other reasonable alternative existed. If approved, such use would be the minimum necessary.

Extractive activities such as artifact collection and excavation would be allowed. Short-term impacts to visual, vegetative, and other resources would be permitted, but only if long-term impacts could be fully mitigated.

### **Pottery Collection**

Although collection of prehistoric pottery is generally prohibited by ARPA, an exception can be made if it is formally determined that these items are no longer of archeological interest. Under Alternative B, the BLM would consider making such a determination on a site-by-site basis, but only if such activity was found to be a traditional cultural practice within the meaning of P.L. 100-225. Individuals wishing to collect potsherds from a particular location within the NCA for traditional purposes would apply to the BLM for a special-use permit. After the location had been thoroughly documented and a reference collection of the pottery taken for permanent curation, and after consultations required under NHPA, the BLM could issue the permit for collection from the surface.

### **Signs**

Antiquities signs would be posted in areas of active or anticipated vandalism, taking care not to draw unwarranted attention to undamaged sites. Under Alternative B, as many as 200 signs could be posted.

### **Access Easements**



### **& Consolidation of Ownership**

In areas of major archeological or historical values within or adjacent to public land, the BLM would seek legal access easements across key parcels of private land. The agency would also attempt to consolidate ownership by purchase or exchange from willing sellers in these areas.

### **Cadastral Survey**

The BLM would manage this function in the same way as discussed for Alternative A. A cadastral survey is needed to determine ownership of the Cebolla Canyon Schoolhouse.

### **Road Closure**

Under Alternative B, no roads would be closed specifically to protect cultural resources.

### **Formal Monitoring**

A program of formal, controlled photo-monitoring would be continued at the Dittert Site, Oak Tree Site and Arroyo Ruin, and new photo-monitoring would be established at the Pinole Site, The Citadel, Oak Tree Ruin, Armijo Canyon Homestead, Lobo Canyon Petroglyphs, Aldridge Petroglyphs, and other high-value or seriously threatened cultural resource properties. (The purpose of photo-monitoring is to systematically document changes in site condition and identify corrective actions.) To ensure that maintenance needs were met, the BLM would regularly monitor the condition of all stabilized sites and those with this potential.

### **Stabilization**

The existing stabilization and erosion control projects at the Dittert Site, Oak Tree Ruin, Arroyo Ruin, Armijo Canyon Homestead, and Armijo Canyon Springhouse would be maintained. New erosion-control measures could be implemented at

up to 25 additional sites. The measures outlined in the El Malpais *Stabilization Assessment of Selected Homesteads* (Gallagher & Goodall 1991) would be implemented, and major new stabilization projects would be undertaken at Stone House, Cebolla Canyon Schoolhouse (if found to be on public land), and other homesteads with standing structures. If new excavations exposed prehistoric architecture, the BLM would consider stabilizing the structures as well.

Stabilization and erosion-control measures would be allowed in wilderness, but only if unusual scientific values were threatened and no other reasonable alternative existed. Such activities would be subject to the "minimum tool" requirement and would not be allowed to degrade the area's overall wilderness characteristics.

### **Fire Suppression**

All homesteads and other structures with standing wooden elements would be singled out as high-priority fire suppression zones, both within and outside of wilderness.

### **Special Designations**

Under Alternative B, the BLM would place a higher priority on nominating deserving properties to the National Register of Historic Places. The area of the Dittert Site presently covered by National Register listing would be expanded, and other sites such as the Cebolla Canyon Community, The Citadel, and the Pinole Site would be nominated. The BLM would actively encourage addition of the Dittert Site to the Chacoan World Heritage Site listing.

### **Boundary Modifications**

The BLM would recommend that the Breaks Non-NCA Unit (12,100 acres) be added to the NCA. This unit was recently acquired by the BLM and includes portions of the Armijo Canyon and Tank Canyon prehistoric communities. These lands and their cultural resources would receive a higher level of protection and would be managed more intensively as part of the NCA.

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### **Public Interpretation**

In addition to providing off-site interpretive measures such as brochures, exhibits, and other media, the BLM under Alternative B (Resource Use) would also encourage visitation and onsite interpretation at the Dittert Site, Ranger Station Reservoir, Pinole Site, The Citadel, Cebolla Canyon Community, Lobo Canyon Petroglyphs, and Aldridge Petroglyphs. Public interpretation would also be developed at up to six homesteads, including Armijo Canyon Homestead, Armijo Canyon Springhouse, Cebolla Canyon Schoolhouse (if found to be on public land), Stone House, and other suitable properties. The BLM would conduct frequent guided interpretive hikes to cultural resource sites.

### **Issue 8--Wildlife Habitat**

In addition to maintaining existing habitats as described under Alternative A, the BLM's primary emphasis under Alternative B would be to increase the enhancement (quality and quantity) of wildlife habitats within the Planning Area. However, because of increased emphasis on recreational and other human uses (e.g., facility development), habitat enhancement could be limited in some geographic areas.

The BLM would undertake the following wildlife habitat projects to increase the enhancement of existing habitat quality and quantity. (Refer to Appendix P for descriptions of other typical projects that could be used; e.g., water developments, fences, vegetative manipulation.) Under Alternative B, the BLM would propose up to ten enhancement projects annually, generally in areas where limiting factors occurred (e.g., lack of water or appropriate vegetative habitat). Sikes Act funding would be used for projects wherever appropriate.

### **Prescribed Fire & Wildland Fire Under Prescription**

To support appropriate animal populations, the agency would use these two types of fire throughout the Planning Area in a balanced approach to

maintain and/or enhance wildlife habitats in the desired vegetative condition. Each prescribed burn would range from 50 to 1,500 acres in size, with an average of 750 acres.

### **Prairie Dog Colony Enhancement Area**

This project would use the south half of the North Pasture and the Head Pasture of the El Malpais Allotment (Breaks Unit) as an enhancement area of approximately 1,000 acres for a prairie dog colony. This region contains the largest known prairie dog colony within the Planning Area, and its enhancement would also help support two local special-status species (the burrowing owl and mountain plover). If the colony expanded to an appropriate size (about 200 acres), the area would also be a potential release site for the black-footed ferret, one of the most endangered mammals on earth. Additionally, every year the BLM receives numerous requests from the public for a location for releasing prairie dogs that have been displaced from residential development areas, mainly in Albuquerque and Santa Fe. Because of other conflicting uses, the agency does not have a release area. This project would provide such a location, as well as enhancing additional habitat for special-status species.

### **Wildlife Water Catchments**

To help provide wildlife water in areas where it is limited, the BLM would install three catchments (with an inverted umbrella or "flying saucer" design) within the Cerro Brillante Unit (T. 6 N., R. 12 W., Sec. 31, SE¼; Sec. 33, NE¼; Sec. 35, NE¼). These catchments are specifically designed to support the antelope population within the area, although they would provide water for numerous other wildlife species. They would be funded through the Sikes Act Program.

### **Riparian Fencing**

The BLM would fence a 1½-mile section of the perennial stream along Cebolla Canyon, below Cebolla Spring (T. 5 N., R. 10 W., Secs. 2 and 3). This is one of the few perennial streams that occur within the Planning Area; protection of these unique habitats is a BLM priority.

### **Reintroductions**

As identified in Alternative A, the BLM would work with the NMDG&F and the FWS to conduct feasibility evaluations for reintroducing native wildlife and/or plant species within the Planning Area. The emphasis would be placed on special-status species.

### **Issue 9--Vegetation**

Under Alternative B, the BLM would emphasize forest and woodland, livestock grazing, riparian, fire and watershed management techniques to achieve the vegetative objectives.

To meet woodland objectives, piñon/juniper thinning would be permitted. Areas at lower elevations where the Potential Natural Community was open savanna or grassland would be proposed for thinning. A variety of tree sizes and ages would be left. The ground cover from trees left after harvest would be between 10 and 20 percent.

Changes in livestock grazing management would be made to ensure that vegetative objectives were accomplished. The Cerro Brillante CRMP is planned for completion during 1998, and the El Malpais in 1999. If monitoring studies indicated that existing management plans should be revised, new plans would be developed and/or livestock grazing use would be reduced. The minimum livestock grazing rest period provided in the management plans would be May 15 to June 30 and July 1 to September 15 each year, with at least one pasture per allotment rested during each period. To facilitate rest from livestock grazing, the BLM would consider building new range improvements, waters and fences for grazing allotments with or without an AMP/ CRMP. A site-specific EA would be completed for any range improvements considered. AMPs would also include objectives and actions for forest and woodland, riparian, wildlife and watershed management.

To ensure progress toward fully functioning riparian areas, wet zones surrounding springs used by livestock would either be fenced to exclude these animals or receive regularly scheduled rest from such use. For either option, springs could be developed by piping the water away from the wet area. Springs not used for livestock water would remain unfenced and undeveloped.

Prescribed fires and wildland fires under prescription would be used to accomplish forest vegetative objectives

by reducing piñon-juniper that has invaded or increased in ponderosa pine habitat. The BLM would employ fires annually, each ranging from 50 to 1,500 acres in size.

Watershed management practices (e.g., structures and vegetative treatments) would be allowed under Alternative B. The BLM would control noxious weeds (e.g., knap-weeds, bindweed, leafy spurge, thistles) by mechanical, chemical or biological means. A site-specific EA would be completed before any treatment.

Any needed erosion-control structures would be proposed in AMPs/CRMPs. Small structures would be the primary focus, but larger structures that would also provide water for livestock and wildlife would be considered.

Erosion-control structures would also be considered to protect cultural resource sites. Where possible, construction of these protective structures would be addressed in AMPs/CRMPs. However, if cultural resource sites were in immediate jeopardy, site-specific project plans would be prepared.

### **Issue 10--Boundary & Land Ownership Adjustments**

The Planning Area includes 24,200 acres outside the NCA boundary. Another 17,100 acres lying outside the NCA boundary but contiguous to it are being considered as additions to the NCA.

Under Alternative B, the BLM would recommend to the Congress the following changes in the NCA boundary.

- Exclude 960 acres of Acoma Pueblo lands currently within the NCA boundary from the Spur Unit and Cebolla Wilderness. This would remove several parcels totalling 800 acres between NM 117 and the National Monument boundary, and 160 acres recently acquired by Acoma Pueblo within the Cebolla Wilderness (T. 7 N., R. 10 W., Sec. 12). These are adjacent to other Acoma lands, and are aboriginal, with recurring value to the Acoma people.
- Expand the NCA to include an additional 26,200 acres known as the Brazo and Breaks Non-NCA Units and the Continental Divide-AFO Unit (24,000 acres federal and 2,200 private--refer to Table 1-1 in Chapter 1, and Map 31). Acquire inholdings by exchange if own-

## CHAPTER 2--ALTERNATIVES

ers are willing. These parcels are within Cibola County, and are contiguous to and a logical extension of the NCA. (Refer to Chapter 1 for a more detailed description of each parcel.)

- In addition to the priorities in the BLM's Land Protection Plan (1989), Alternative B would include two acquisition recommendations: a treadway for the CDNST (via easement, sale or exchange) in the Cerro Brillante-AFO Unit, if owners were willing; and a 160-acre parcel that includes an early historical ruin with interpretive potential (portions of T. 5 N., R. 11 W., Sec. 3 and T. 6 N., R. 11 W., Sec. 34).
- Recommend that the Congress amend the boundary of the Cebolla Wilderness to include portions of newly acquired, contiguous lands (an increase of 3,650 acres), and allow for the reengineering, repair and realignment of the cherry-stemmed Cebolla and Sand Canyon Roads to correct severe erosion problems affecting visitor safety (no net change in wilderness acreage). These additions, less the excluded 160 acres of Acoma lands (discussed above), would result in a net increase of 3,490 acres in the Cebolla Wilderness (refer to Map 26).

Pending Congressional action, the BLM would manage the Breaks and Brazo Non-NCA Units in accordance with the provisions of this plan. The agency would temporarily withdraw all public land within the proposed NCA expansion units from the public land and mineral laws.

### Alternative C--Natural Processes

Under Alternative C, the Natural Processes Alternative, the BLM would minimize human activities in the Planning Area. In implementing this alternative, the agency would close a maximum number of roads and place restrictions on scientific investigations and other activities that would remove materials from the Planning Area. Developments such as interpretive signing, ruin stabilization, erosion control, trail development, and range and wildlife improvements would be minimized. *Dispersed* recreational use would be *emphasized*, grazing reduced, and no deliberate manipulation of vegetative communities would be attempted.

#### **Issue 1--Recreation**

Under Alternative C, the emphasis for recreation

would be on dispersed opportunities *with* few recreational developments *available to facilitate recreational use*.

However, opportunities would continue to exist for visitors to participate in activities such as camping, hiking, horseback riding, hunting, mountain and road biking, picnicking, sightseeing, back-country driving, wildlife watching, exploring and learning about historical and archaeological sites, caving, climbing, skiing, shooting, trapping, photography, pack trips and enjoying wilderness solitude. No formal indication would be offered of where or when these activities could be pursued.

The BLM would not promote camping, hiking, picnicking, and sightseeing for cultural or historical interest in the Planning Area, and would encourage them elsewhere. Visitors would be informed that these pursuits were available as dispersed activities, with no formal opportunities provided. No camping would be allowed at The Narrows.

As under the No Action Alternative, horse gates would be provided at The Narrows and Hole-in-the-Wall access points.

Through route designations and closures, the BLM would shift the ROS classes and recreational opportunities available toward semi-primitive, nonmotorized types. About 13 percent more roads would be closed under Alternative C than under the No Action Alternative (refer to Table 2-6 and Map 8). No areas would be identified for watchable wildlife opportunities.

Mountain biking opportunities would occur along roads designated as open in the Planning Area. The number of miles of open road would be decreased by 56 percent from the No Action Alternative. No additional developments would be proposed.

Approximately 200 miles of BLM-administered roads would be available for sightseeing, driving for pleasure, or back-country driving. No back country byways would be offered.

### Visual Resource Management

Under Alternative C, the BLM would manage visual resources under the assigned VRM classes shown on Map 16. All public lands within the Planning Area would be assigned a VRM class (refer to Table 2-8). The BLM would place greater emphasis on preserving the natural appearance of the landscape by assigning the more restric-

tive Classes I and II to nearly all of the Planning Area. Under these two classes, human modifications to the characteristic landscape would be allowed only if they were substantially unnoticeable.

Implementing this alternative would amend the RMP to reflect the following changes in VRM classes. Class III for the Cerro Brillante and Neck Units would be changed to Class II. Class I for the Cerritos de Jaspe, Neck, Continental Divide, and Cerro Brillante Units would be amended to Class II. The Cebolla and West Malpais Wildernesses would continue to be managed under Class I, along with the 18,300-acre Chain of Craters WSA and an additional 9,340 acres proposed for addition to the Cebolla Wilderness. VRM Class II would be assigned to the recently acquired lands within the Brazo and Breaks Units. VRM Class III, which allows a moderate amount of visual change, would be assigned to only the 60 acres of public land around the Ranger Station on NM 117.

After evaluation, those facilities and roads not needed for managing and protecting the resources would be removed and the sites rehabilitated to benefit scenic resources. Few new facilities would be introduced into the landscape. To protect the viewshed along federal, state and county roads within the Planning Area, the BLM would seek

scenic or conservation easements from willing private landowners.

## Issue 2--Facility Development

Under Alternative C, the emphasis for recreation would be on dispersed opportunities. Few additional opportunities would be proposed, and facilities would be developed only where recreational activities exceeded the Limits of Acceptable Change (LAC--refer to Appendix D), to harden sites, to redirect activities *for site and resource protection, or visitor and employee health and safety*.

Although few new facilities would be proposed, they would be designed and constructed to appear consistent throughout the Planning Area, blending with the surrounding landscape and local architectural styles. More rustic, simpler facilities would be used. Identification signs would be maintained at eight locations along roads entering the Planning Area (refer to Map 12).

No campground or amphitheater would be built in the Spur Unit, as proposed under Alternative B. The BLM would discourage use of The Narrows area, ceasing interpretation efforts, removing all developments and designating it for day use only with no camping allowed. The agency would encourage visitors to camp at dispersed sites using Leave No Trace and Tread Lightly practices.

No additional trails would be developed for hiking opportunities. Visitors would continue to use the informal trails along old roads such as those into the West Malpais Wilderness and Armijo Canyon, or the informal Narrows Rim Trail. The BLM would remove the trailhead sign for this trail, and would not develop nearby parking or horse facilities. Visitors would be encouraged to use trails outside the Planning Area. Social trails that exceeded the Limits of Acceptable Change would be closed, with the closures enforced (refer to Appendix D).

No recreational developments would be planned for the CDNST. The treadway would be constructed and easements acquired, but only the minimum required by the CDNST Plan (USDA, FS

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1993). Any developments would be postponed until visitor use warranted and/or use exceeded the Limits of Acceptable Change for social trails and road pullouts.

Under Alternative C, the BLM would provide no additional developments for horseback riding, picnicking, watchable wildlife, sightseeing, driving for pleasure, or back-country driving. The horse and hiking trail access into the Cebolla Wilderness would remain, but no improvements would be made at the trailhead, nor would parking for horse facilities or hiking be installed. No additional byways would be proposed or developed, and the Chain of Craters Back Country Byway would be decommissioned.

No trails would be developed for mountain biking. As the Limits of Acceptable Change for mountain bike use were exceeded, any use would be discouraged. The BLM would encourage such use at locations outside the Planning Area.

No additional recreational or interpretive developments would be planned at any of the prehistoric and homestead sites. Neither would other cultural properties have recreational developments of any kind. The Dittert Site would be removed from guided tours, maps and public information developed in the future. Visitors would be discouraged from accessing the site or using it as a recreational opportunity, and would be directed to other sites outside the Planning Area.

Limited onsite interpretive facilities would be developed under Alternative C. Most if not all interpretation would occur through one-on-one contact with visitors, and printed brochures, exhibits, interpretive media, and publications at the Ranger Station. Brochures would emphasize the natural process occurring in the Planning Area.

### Issue 3--Access & Transportation

To enhance the natural processes within the Planning Area, the BLM would close more public lands to motor vehicle access by reducing the number of routes available for public use. The closed lands would consist of 128,440 acres or 52 percent of the public land acres in the Planning Area, which would be under wilderness management. On the remaining 48 percent of the Planning Area, access would be limited to designated roads and trails (refer to Table 2-10). No lands would remain open or undesignated.

Under Alternative C, more roads would be closed than

under any other alternative (refer to Table 2-11). These closures would reduce road density and decrease interference with natural processes; the BLM would then return these lands disturbed by vehicle use to resource production through natural and mechanical means. Vehicle use by the general public would be restricted to 199.7 miles (55 percent) of the inventoried BLM routes available under the No Action Alternative (Alternative A). The mileage of access routes authorized for administrative and grazing use would also be reduced. A total of 76 miles of state highways, U.S. Forest Service, county and private roads within the Planning Area would remain unaffected under this alternative, as would 18.4 miles of BLM arterial routes. A greater portion of the Planning Area would be available for nonmotorized and non-mechanized means of access.

Vehicle use would be limited to the designated routes shown on Map 20, unless otherwise authorized. Approximately 119 miles of vehicle routes in the NCA and about 14 outside the NCA but within the Planning Area would be closed. The greatest quantity of roads would be closed in the Brazo (19.1 miles), Cerritos de Jaspe (12 miles), Cerro Brillante (21 miles), Continental Divide (17.1 miles) and Chain of Craters Units (39.2 miles). Another 3.1 miles of roads would be closed in the Spur Unit, .3 mile in the Neck, and 7.3 miles in the Breaks. Of the routes within the Planning Area but outside the NCA, 8.7 miles would be closed in the Breaks Non-NCA Unit and 5.3 in the Brazo Non-NCA Unit. An additional 23.7 miles of local routes would be added to the existing 6.3 miles; these would be restricted to authorized use only.

The BLM would continue to allow cross-country access in the Planning Area by nonmotorized and nonmechanical means (e.g., horseback and foot). However, because of terrain and vegetation conditions, the agency assumes that most of this type of access would be concentrated on existing or abandoned back-country roads and the few existing trails. Mechanical transport (i.e., mountain and road bikes) would be prohibited from entering the wildernesses and could be used only on designated vehicle routes. Motorized and mechanical access for traditional American Indian cultural practices would also be restricted to designated routes unless otherwise authorized.

Maintenance would be concentrated on an as-needed or emergency basis over fewer miles of road, depending on available funding. The BLM would take measures to discourage use and eliminate evidence of closed roads, using

onsite materials (e.g., slash piles, rocks), revegetating through natural or mechanical means, fencing, signing, other barriers, or a combination of these treatments.

The agency would develop maps and brochures to inform the public of the access opportunities and restrictions. The agency would use and maintain signs to mark designated routes and closures.

#### **Issue 4--Wilderness Management (Cebolla & West Malpais)**

The BLM would recommend an adjustment to the Cebolla Wilderness boundary under Alternative C through the inclusion of an additional 9,340 acres of contiguous public lands (refer to the discussion under Issue 5 below). At the request of Acoma Pueblo, the BLM would also recommend to the Congress that the boundary of this wilderness be amended to exclude 160 acres of private land recently acquired by the pueblo. Located in Sec. 12, T. 7 N., R. 10 W. along the perimeter boundary of the wilderness (refer to Map 27), these lands are aboriginal, have recurring value to the Acomas, and are adjacent to other Acoma lands that were excluded from the wilderness when the existing boundary was defined.

The BLM would continue to concentrate on wilderness signing, prevention of unauthorized vehicle intrusions, patrolling and monitoring of uses for compliance, and educating the public through personal contact and interpretive materials. Management of wilderness under Alternative C would emphasize the preservation of naturalness and natural processes, with less focus on use and enjoyment for primitive and unconfined recreational activities.

The BLM and volunteers would continue to patrol the areas at least once a month when they were accessible to the public. More frequent patrols would be made when conditions warranted. Patrolling would be used to discourage violations, gather information about area resources and uses, and inform visitors about the resources and appropriate uses of designated wilderness.

The public could continue to use the areas for primitive types of recreation that did not require the use of motor vehicles, motorized equipment or other forms of mechanical transport such as mountain bikes. However, such use would not be encouraged through brochures identifying available opportunities. Information and maps

would be available upon request; these would highlight the wilderness resource, the risks associated with use, and the regulations governing such use.

The existing recreational facilities and trails on the wilderness perimeter would remain in place for continued use and resource protection. La Ventana Natural Arch, The Narrows, and Armijo Canyon would continue to serve as primary access points to the Cebolla Wilderness. The Cebolla Canyon Road (No. 2003) that splits the Cebolla Wilderness, and the Sand Canyon Road (a dead-end, cherry-stemmed road) would also provide access opportunities. However, the natural erosion process would be allowed to close these two roads over the long term. Rock cairns and other signs marking the Narrows Rim Trail, which extends 3.5 miles into the Cebolla Wilderness, would be removed and the trail reclaimed.

For the West Malpais Wilderness, the trailhead at the end of the cherry-stemmed road from CR 42 would continue to serve as the primary access point. Another access point would continue to be a trail that follows an old vehicle route (authorized for use by the grazing operator) and leading into the Hole-in-the-Wall, a major attraction of this wilderness.

Except at La Ventana Natural Arch, where permanent restrooms and a paved parking lot would continue to be provided, other access facilities would remain rustic in nature. Their primary purpose would be resource protection, not user convenience or direction. Onsite information would remain limited. Signs would be placed around the wilderness perimeters to identify the boundaries and some regulations governing area use. Additional information and education would be provided through personal contact by BLM staff and volunteers when users were encountered onsite during patrols, and at the Ranger Station on NM 117, BLM offices in Grants and Albuquerque.

As authorized in accordance with the Wilderness Act and P.L. 100-225, motorized and mechanical access would be allowed to non-federal inholdings and for livestock grazing operations over 5.5 miles of routes in the Cebolla Wilderness and 17.8 miles in the West Malpais Wilderness. This access and use associated with livestock grazing would continue under the conditions set in the BLM's RIM Plans (1990) and AMPs/CRMPS for the individual allotments overlapping these two areas. Access to private inholdings would continue over BLM-selected routes that would cause the least impact to wilderness character while

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serving the purposes for which the land was held or used.

Traditional American Indian cultural practices would be allowed to continue in the two areas in a manner consistent with the intent of the Wilderness Act. Motor vehicle access to the perimeter of each wilderness would be allowed, but such use inside the wilderness would be prohibited, unless the BLM has granted prior authorization after consultation and evaluation. When the BLM authorized such use of motorized vehicles by American Indians, stipulations to control impairment of wilderness character would be met. Upon request, the BLM would temporarily close the smallest practicable area for the minimum period needed to accommodate American Indian activities.

In most instances, cultural and historical resources would be subject to the forces of nature in the same manner as other wilderness resources. Stabilization and scientific studies of selected cultural resources and historical sites within the two wildernesses would continue as required to meet the BLM's protection and preservation mandates. Research would be authorized if it could be carried

out in an unobtrusive manner by methods compatible with preserving wilderness character.

Wildlife habitat management would continue to be guided by the BLM's Wilderness Management Policy. Hunting and trapping would be permitted, subject to applicable state and federal laws and regulations. Use and maintenance of the one wildlife exclosure and the one water catchment (inverted umbrella) in West Malpais would be allowed to continue (refer to Chapter 3 for a list). They would be maintained using the "minimum tool" concept.

Vegetation treatments would be considered on a case-by-case basis in accordance with guidance provided in the BLM's Wilderness Management Policy. Fires would be controlled to prevent their spread to areas outside the wilderness, the loss of human life or property. Fire suppression methods would be those that would cause the minimum adverse impact to wilderness character.

The BLM would continue to seek acquisition of approximately 300 acres in Cebolla and 500 acres in West Malpais of surface inholdings and subsurface interests from willing sellers. Priority would be given to those lands that were undeveloped, or where use would pose a threat to wilderness character. These lands would be managed as wilderness when acquired.

### **Issue 5--Wilderness Suitability**

#### **Chain of Craters WSA**

Under Alternative C, the entire WSA would be recommended as suitable for wilderness designation. The resources of the 18,300-acre Chain of Craters would be managed to maximize wilderness values, including solitude, naturalness, and opportunities for primitive and unconfined recreation.

The wilderness would be closed to unauthorized motorized and mechanized use. Approximately 47 miles of vehicular routes within the wilderness would be closed to the public. About 1,800 acres along the perimeter of the Chain of Craters would be a roaded natural area, 1,000 acres would be semi-primitive motorized, and about 15,500 acres would be semi-primitive,



nonmotorized wilderness. Authorized vehicle access routes would be established based on the "minimum tool" concept and emergency needs for maintaining livestock grazing facilities.

Grazing operations in the Chain of Craters Wilderness would continue to use the existing 2,485 AUM of forage per year, unless monitoring of forage condition and production indicated a need for change. Livestock operators would manage without using motorized equipment, except by permit for facilities maintenance identified in AMPs/CRMPs or RIM Plans.

Under the Wilderness Act, the BLM would deny permission for motorized access into the Chain of Craters for traditional American Indian cultural purposes. Such access would require specific legislation by the Congress.

As wilderness, the Chain of Craters would offer high potential for recreational use. Suitable activities would include sightseeing, day hiking, backpacking, camping, horseback riding, birdwatching, landscape and nature photography, observation of geologic phenomena, and hunting. (Note: A proposal to route approximately 9 miles of the -CDNST through the WSA has been analyzed as part of a multi-agency plan--USDA, FS 1993).

The BLM would manage the visual resources within the WSA as Class I. Any change in the basic landscape elements (form, line, color, or texture) caused by a management activity would not be evident in the characteristic landscape.

#### **Lands Contiguous to the Cebolla Wilderness**

Under Alternative C, the BLM would recommend approximately 9,340 acres of the 10,380 acres studied under Section 202 of FLPMA as an addition to the existing Cebolla Wilderness (refer to Map 27). The wilderness boundary would be amended to include the contiguous acres.

Until those lands recommended as suitable were either designated or released by the Congress, they would be managed under the Interim Management Policy except as it applies to minerals. The agency would manage the 1,040 acres recommended as non-suitable for designation under the management prescriptions identified in this alternative and applicable to this area.

#### **Issue 6--American Indian Uses & Traditional Cultural Practices**

Under Alternative C, the BLM would take actions to resolve this issue in the same way as under Alternative A.

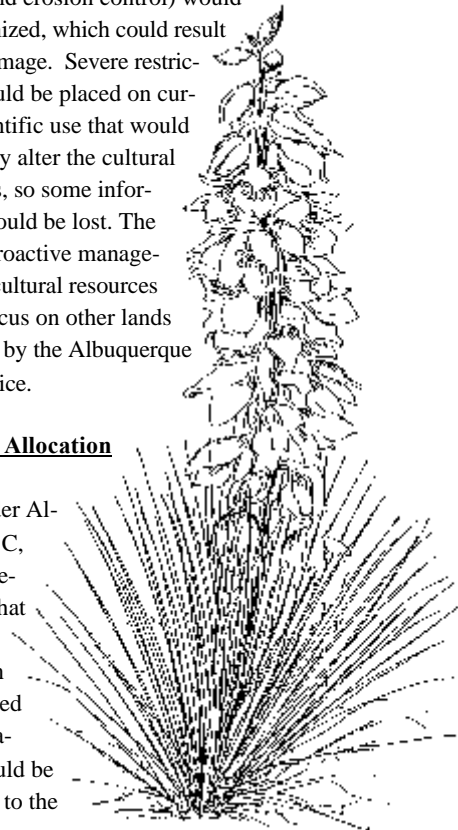
#### **Issue 7--Cultural Resources**

Under the Natural Processes Alternative, the BLM would seek to eliminate human impacts, as much as possible, while allowing natural processes to take their course. This philosophy is consistent with Navajo beliefs that disturbance of places associated with death can be very dangerous. It is also consistent with traditional Pueblo beliefs that recognize prehistoric sites as ancestral places that should be left alone, subject to natural processes. Therefore under Alternative C, the BLM would minimize management actions for individual cultural properties.

The scientific values inherent in the cultural resources of the Planning Area would benefit from general management practices such as reduced public access and improved grazing management. However, intrusive management practices for particular properties (such as signing, stabilization, and erosion control) would be minimized, which could result in site damage. Severe restrictions would be placed on current scientific use that would physically alter the cultural resources, so some information could be lost. The BLM's proactive management of cultural resources would focus on other lands managed by the Albuquerque Field Office.

#### **Use Allocation**

Under Alternative C, cultural resources that met the definition of "isolated manifestation" would be allocated to the



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Discharged Use category if they have been adequately recorded. All other PaleoIndian, Archaic, and Pueblo sites would be managed for public value and allocated to socio-cultural use. In this case, such use would imply recognizing these sites as ancestral Pueblo places and deferring to the wishes of Acoma, Zuni, and other interested pueblos for their management.

Prehistoric sites could be reallocated to scientific use or conservation for future use on a case-by-case basis, and only with the concurrence of all pueblos who recognize close ties to these properties. This would normally imply using non-intrusive measures to protect the sites from human impacts, and non-interference with natural processes.

All historical Navajo sites would also be allocated to sociocultural use and treated in a similar manner. Any reallocation would require concurrence from the Navajo Tribe and any local chapters who recognize close ties to the properties. All Anglo and/or Hispanic sites would be managed for their information potential and allocated to scientific use.

### **Compliance with the National Historic Preservation Act**

Few BLM-authorized development projects would be anticipated under Alternative C, but if prehistoric cultural resources were found within areas of potential impact, avoidance rather than data recovery would be the strongly preferred mitigation measure. Any proposed data recovery affecting Pueblo or Navajo sites would require reallocation of the site to scientific use. Although such a reallocation would be within the scope of this alternative, it would require concurrence from the interested tribes as described above.

### **Inventory & Baseline Condition**

No inventories to identify vulnerable sites and establish baseline condition would be undertaken.

### **Scientific Investigation**

Under Alternative C, scientific investigation of Anglo/Hispanic historical sites, and investigations at other sites that did not physically alter them would be allowed under the conditions described above for Alternative A. However, in general, investigations that would physically alter Paleo- Indian, Archaic, Pueblo, or Navajo sites would be prohibited. If cultural resources were threatened and/or were of unusual scientific importance, exceptions would be considered, but would only be permitted with the concurrence of the concerned American Indian groups as described above. Under these conditions, intensive scientific investigations would not likely occur during the life of this plan.

No extractive activities would be permitted within wilderness. Activities that would result in long- or short-term impacts to visual resources, vegetation, or other resources would be prohibited.

### **Pottery Collection**

Under Alternative C, the BLM would manage this activity in the same way as under Alternative A.

### **Signs**

No antiquities signs would be posted.

### **Access Easements & Consolidation of Ownership**

No special efforts would be made to consolidate ownership of vulnerable archeological properties, and access easements would only be sought where needed for law enforcement.

### **Road Closure**

Vehicular access to the Planning Area would be most restricted under Alternative C, so no

special area closures would be proposed for cultural resources.

### **Formal Monitoring**

Aside from patrols by Law Enforcement Rangers intended to prevent or prosecute violators of ARPA, the BLM would conduct no formal monitoring of cultural resources.

### **Stabilization**

Deterioration of cultural resources is considered to be a natural process consistent with management under Alternative C. Remedial measures such as stabilization and erosion control would be proposed only if extraordinary scientific values were threatened, and would be undertaken only after gaining the concurrence of tribes who recognize close ties to the properties. Existing stabilization and erosion-control projects are intended primarily to preserve the potential of the sites for public use, and would not be maintained under this alternative.

No stabilization and erosion control measures would be allowed within wilderness.

### **Fire Suppression**

No homesteads or other historical properties would be identified for protection from fire.

### **Special Designations**

No National Register or other special designations would be pursued.

### **Boundary Modifications**

Boundary modifications proposed under Alternative C (refer to Issue 10 below) would expand the NCA, adding portions of the Breaks Non-NCA and Tank Canyon SFO Units that contain highly valuable cultural resources.

### **Public Interpretation**

No onsite interpretation of cultural resources would occur under Alternative C, nor would the

public be encouraged to visit any of the cultural resources in the Planning Area. Interpretation and public education would rely almost entirely on offsite measures such as exhibits at the Ranger Station. Visitors on BLM-supervised interpretive hikes would visit cultural resources rarely, and only after close consultation with American Indian groups who were concerned about the properties.

### **Issue 8--Wildlife Habitat**

Under Alternative C, the primary emphasis would be to let natural processes maintain the existing wildlife habitats, so the BLM would undertake no maintenance or enhancement projects. However, maintenance of existing projects and habitats needed to support special-status species would still remain a priority.

No new developments (e.g., water facilities, vegetative manipulations, fences) would be undertaken, except where necessary to support the maintenance of habitat for special-status species. Wildland fires under prescription would be used throughout the Planning Area to maintain habitats in a natural vegetative condition and support existing populations. The fire history of the Planning Area shows a broad variability in the number and size of wildfires. For evaluating impacts, it is estimated that the average number of acres that would be burned from wildland fires under prescription would be 1,000 acres annually.

The BLM would work with the NMDG&F and the FWS to conduct feasibility evaluations for reintroducing native wildlife and/or plant, special-status species within the Planning Area. Presently only one species (desert bighorn sheep) has been identified for possible reintroduction within the vicinity. No reintroduction of species other than those with special status would occur under Alternative C.

### **Issue 9--Vegetation**

Under Alternative C, livestock grazing and fire management would be emphasized to meet vegetative objectives. No tree thinning would be permitted to meet forest or woodland vegetative objectives.

Changes in livestock grazing management would be made to ensure it was providing for the accomplishment of vegetative objectives. AMPs/ CRMPs would continue to include such objectives. The Cerro Brillante CRMP is

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scheduled for completion in 1998 and the El Malpais CRMP in 1999. Existing plans for the Los Cerros, Techado Mesa and Los Pilares Allotments would be amended to include vegetative objectives, and the minimum rest periods from livestock grazing use. The minimum livestock grazing rest period would be yearlong for at least one pasture in each allotment. No new range improvements would be developed. AMPs would include objectives and prescriptions for fire, wildlife and watershed management. If monitoring studies indicated the need, existing plans would be revised, new plans developed, and/or livestock grazing use reduced.

For riparian management, no new spring enclosure would be constructed. The wet areas around springs used by livestock would receive regularly scheduled rest from livestock grazing. Springs not used by livestock would remain unfenced and undeveloped.

Prescribed fires would not be used under Alternative C, except where needed for fuel management. Wildland fires under prescription would be used to the greatest extent possible to provide accomplishment of woodland and forest vegetative objectives. Fires, ranging in size from 50 to 1,000 acres each, would be allowed to burn annually under specified conditions.

For watershed, no structures would be built. However, the treatment of noxious weeds (e.g., knapweeds, bindweed, leafy spurge, thistles) would be allowed under Alternative C by mechanical or biological means. The BLM would complete site-specific EAs before treating any noxious weeds.

### **Issue 10--Boundary & Land Tenure Adjustments**

The Planning Area includes 24,200 acres outside the NCA boundary (non-NCA units). A total of 17,100 acres outside the NCA boundary but contiguous to it would also be considered as additions to the NCA (refer to Table 1-1 in Chapter 1 and Map 32). The BLM would recommend that the Congress amend the NCA boundary to accomplish the following.

- Exclude 960 acres of Acoma Pueblo lands currently within the NCA from the Spur Unit and Cebolla Wilderness. This would include several parcels totalling 800 acres between NM 117 and the National Monument boundary, and 160 acres within the Cebolla

Wilderness (T. 7 N., R. 10 W., Sec. 12) recently acquired by Acoma Pueblo. This latter parcel, which is adjacent to other Acoma lands, consists of aboriginal lands that have recurring value to the Acoma people.

- Expand the NCA to include 41,300 acres in the Breaks Non-NCA, Brazo Non-NCA, Continental Divide-AFO, Tank Canyon-SFO, and Techado Mesa-SFO Units (38,900 acres federal and 2,400 acres private). (Refer to Chapter 1 for a more detailed description of each parcel.) These parcels are within Cibola and Catron Counties, and are contiguous to and a logical extension of the NCA. The BLM would acquire inholdings if owners were willing, with exchange being the preferred acquisition method.
- The BLM would add two acquisition recommendations: (1) a treadway for the CDNST by easement, exchange or sale in the Cerro Brillante-AFO Unit, if owners were willing; and (2) a 160-acre parcel that includes an early historical ruin with interpretive potential (portions of T. 5 N., R. 11 W., Sec. 3 and T. 6 N., R. 11 W., Sec. 34). Other acquisition recommendations in the Land Protection Plan (USDI, BLM 1989) would remain in effect.
- Modify the boundary of the Cebolla Wilderness to include portions of newly acquired lands contiguous to the current wilderness boundary (an increase of **3,930** acres). This change, less the 160 acres of Acoma lands excluded, would result in a net addition of **3,770** acres to the Cebolla Wilderness (refer to Map 28).

Pending decisions from the Congress, the BLM would manage the Breaks and Brazo Non-NCA Units in accordance with provisions of this plan. The Continental Divide-AFO Unit would be managed under the Rio Puerco RMP. The Techado Mesa-SFO and Tank Canyon-SFO Units would continue to be managed under the Socorro RMP. The BLM would issue a temporary withdrawal from the public land and minerals laws for all public lands within the non-NCA units.

### **Alternative D--Balanced Management (Proposed Plan)**

Alternative D is the BLM's **Proposed Plan**. Under this alternative, the BLM would strike a management balance by combining actions selected from the alternatives.

## Issue 1--Recreation

Under Alternative D, the emphasis for recreation would be on a combination of developed and dispersed recreational opportunities. The semi-primitive motorized and semi-primitive nonmotor-ized ROS classes would be applied to larger areas as shown on Map 9 and in Table 2-6. The BLM would reduce the density of vehicle routes in the Planning Area and limit vehicle travel to designated routes.

Within the ROS settings provided under this alternative, users could participate in such activities as camping, hiking, horseback riding, hunting, mountain biking, picnicking, sightseeing, back-country driving, wildlife watching, and exploring and learning about historical and archaeological sites. Recreational activities of interest to smaller populations such as caving, climbing, skiing, shooting, trapping, photography, pack trips, enjoying wilderness solitude and road biking would continue to be offered; however, the BLM would make no formal identification of where or when these opportunities were available.

Camping would be offered at one BLM developed campground and in dispersed sites throughout the Planning Area. No camping would be allowed at The Narrows.

The BLM would establish up to 10 additional hiking trails in the Planning Area, for a total of up 15 trails with a length of approximately 57 miles. The expanded trail system would provide improved access opportunities to such sites as the Lobo Canyon Petroglyphs, one or two homesteads, Cerro Americano, La Rendija and the historical schoolhouse site in the West Malpais Wilderness. The closure of 83.4 miles of vehicle routes in the Planning Area would also create opportunities for visitors to use them as informal hiking trails without vehicle conflicts.

For the convenience of horseback riders in the Planning Area, the BLM would provide facilities. The Narrows would be one location, along with the Armijo Canyon area (for access to the Cebolla Wilderness, not the archaeological site), Hole-in-the-Wall (for access to the West Malpais Wilderness), and Cerro Brillante (for access to the Chain of Craters).

The BLM would close roads to increase the isolation in the Planning Area for animals and hunters.

The agency would continue to allow mountain bike use of the Planning Area on those lands and designated travel routes outside wilderness, especially promoting routes in the Chain of Craters, Cerritos de Jaspe and Brazo Units. Approximately 130.7 miles of designated vehicle routes would be available for such use in these three units, providing a variety of experiences and levels of difficulty. These routes are not as heavily traveled by motor vehicles as some others in the Planning Area and would provide a system of loop trails. (Note: The Chain of Craters would be promoted for such use only if the Congress released the area from wilderness review, not while it continued in WSA status.)

Picnicking opportunities would be provided at the south end of The Narrows through facility development, and would also be encouraged as a dispersed activity. Approximately 273 miles of BLM-designated travel routes would be available for sightseeing, driving for pleasure, or back-country driving, including designated Back Country Byways.

In addition to the points of interest listed under the No Action Alternative, the following would provide opportunities for those interested in cultural or historical properties: the Cebolla Canyon Complex, Lobo Canyon Petroglyphs, and possibly the Cebolla Canyon Schoolhouse or other deserving properties.

Wildlife viewing opportunities would be identified along as many as eight stretches of road in the NCA (refer to Map 13). The BLM would provide interpretive material and signs to enhance the viewing experience.

### **Visual Resource Management**

Under Alternative D, the BLM would manage visual resources on all public lands within the Planning Area under the assigned VRM classes shown on Map 17 and in Table 2-8. All public lands within designated wilderness would be managed under VRM Class I objectives, with most of the remaining public lands under the Class II objectives. (In Class II areas, management activities would be visible but should not attract the attention of the casual observer.) On 60 acres surrounding the Ranger Station, the BLM would assign VRM Class III, which would allow a moderate amount of visual change.

Objectives for managing visual resources on 14,050

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acres within the southwest corner of the Cerro Brillante Unit and the north half of the Neck Unit would be changed from Class III to Class II. The Class I objectives within the Cerritos de Jaspe, Neck, Continental Divide, and Cerro Brillante Units would be amended to slightly less restrictive Class II objectives. This plan would amend the Rio Puerco RMP to reflect these changes in VRM classes.

For analysis purposes, the BLM assumes that the Congress would expand the Cebolla Wilderness by 3,930 acres, and not designate the 18,300-acre Chain of Craters as wilderness. The BLM would amend the RMP to apply VRM Class I objectives within the modified Cebolla Wilderness boundaries. The agency would manage the Chain of Craters Unit under VRM Class II objectives.

The recently acquired lands within the Brazo and Breaks Non-NCA Units would be assigned VRM Class II through this plan amendment. To protect the viewshed along federal, state and

county roads within the Planning Area, the BLM would seek scenic or conservation easements from willing private landowners.

### Issue 2--Facility Development

Under the Preferred Alternative, the BLM would provide a limited number of developed recreational facilities at a modest number of selected sites, and would seek to disperse visitors to other parts of the Planning Area. Facility development would occur after the El Malpais Plan was approved, through project-level analysis.

The agency would develop a campground within approximately 8 acres of the Spur Unit to accommodate camping on the east side of the Planning Area (refer to Map 13). The exact location would be decided after cultural surveys, T&E surveys and site investigations were completed. The campground would provide up to 20 single-family units with leveled parking spurs large enough to handle small self-contained RVs, vehicle campers or tent campers. One unit would be built for multi-family or group camping with appropriate parking. Two vault toilets, tables, and cooking facilities would be constructed within the campground and, if possible, drinking water would be provided.

At a location within a 5-minute walk of the campground, the BLM would build an amphitheater designed to hold about 50 people. Evening programs would occur regularly during the summer. To provide visitors with exercise and direct use for resource protection, the agency would build a loop trail near the campground. Vehicle access to the campground from NM 117 would be improved by upgrading the existing dirt road and surfacing it for all-weather use.

The BLM would provide approximately 57 miles of established trail to distribute visitors and provide resource protection under Alternative D, as under Alternative B (refer to Maps 11 and 13). Other trails at selected monitoring locations such as La Rendija, Cerro Rendija, and Chain of Craters would not be developed until established LAC standards for social trails were exceeded (refer to Appendix D).

*With most of its length in the Cebolla Wilderness the Narrows Rim Trail would be improved using the minimum tool techniques to facilitate resource and wilderness protection and to help direct visitor use to a single pathway. The BLM would provide gravelled parking for up to 15 vehicles.* Horseback access to the Cebolla Wilderness would continue to be provided at this location. (Refer to Figure 2-d for a conceptual design of these facility developments.) Up to three wayside exhibits would be located at this rustic trailhead or near the picnic area.

To serve the informal Hole-in-the-Wall Trail leading into the West Malpais Wilderness, the BLM would build horse facilities, a primitive trailhead, and a graveled parking area for up to 10 vehicles. Existing vehicle access to the trailhead would be improved. (Refer to Figure 2-e for a conceptual design of these developments.)

The agency would construct two rustic-style trailheads, one each at Cerro Americano and Cerro Brillante, for the CDNST. Each trailhead would include up to two wayside exhibits (to include watchable wildlife information at Cerro Americano), and a gravel parking area for up to 20 vehicles. At the Cerro Brillante trailhead, facilities for horse use would be provided. At Cerro Americano, facilities would accommodate mountain bike use. (Refer to Figures 2-e and 2-g for the possible design and layout of these developments.) Where feasible, the BLM would develop and identify water sources for CDNST hikers.

*Mountain-biking facilities would be provided at the Cerro Americano CDNST trailhead. Trailhead facilities to accommodate mountain-bike users in the Cerritos de Jaspe and Brazo Units would be built only if mountain bike routes were established there.* The travel routes available for mountain bike use would not be marked as trails until established LAC standards for social trails were exceeded.

The Narrows would be the only site developed for picnicking. It would be designated as a day-use-only site for parking and hiking in the Cebolla Wilderness. Recreational developments at the south end of The Narrows would include a picnic area with up to 10 units, parking, drinking water (if possible), graveled access, vault toilets, and up to three wayside exhibits. (Figure 2-d shows a conceptual design of these developments.)

The BLM would designate two new Byways, the NM 117-CR 42-NM 53 loop drive, and a route *extending through* the Brazo Unit. The agency would work with partners to purchase and install up to four signs and one or two kiosks for each byway (refer to Map 13). Signs typically measure 3 feet tall by 5 feet wide, with a total height of 6 feet including support posts. (The layout of a typical kiosk is shown in Figure 2-f.)

Primitive trailheads *defined parking for up to eight vehicles and a trailhead kiosk* would be developed for the following cultural/historical properties as time, staff, and budget allowed: the Lobo Canyon Petroglyphs (rather than other rock sites), the Cebolla Canyon Schoolhouse, and other deserving properties as needed to distribute visitor use. *All-weather gravel roads would provide access to trailheads.* For the Reservoir, the Ranger Station and parking lot would serve as the trailhead, with the approved Nature Trail for access.

One or two *selected* homesteads would be developed for public use. To provide for public access, the BLM would build a primitive trailhead, including a parking area for four to six vehicles *to serve each selected homestead*. (Figure 2-g shows a possible design of these developments.) Interpretive wayside exhibits would be developed for up to three sites and/or homesteads, along with brochures and/or trail guides keyed to markers. The BLM would conduct special hikes and programs for up to 200 people per year to these features.

When warranted by significant visitation, the agency would install visitor registration boxes at selected archaeological properties. No additional developments would be planned at these sites. Visitation would be encouraged at the Lobo Canyon Petroglyphs rather than at other sites.

Recreational and facility developments at the Dittert Site would be *a graveled* parking area and access road; the parking would be for up to 20 vehicles; and a rustic trailhead would be constructed for site, *Armijo Canyon Homestead and spring house*, and wilderness access. Horse

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facilities would be built to provide access to the Cebolla Wilderness, not the Dittert Site. (Figure 2-i shows a conceptual design for these facilities.) Dittert Site interpretation would include up to two wayside exhibits, a trail guide, and guided hikes for public and school groups (50 to 200 people per year). This would also be a trailhead and access for the Cebolla Wilderness.

Entry identification signs would be maintained at up to six locations along roads into the Planning Area. Additional signs would be posted as indicated by public comment or to eliminate confusion about land status. (The dimensions of these signs would be the same as the Back Country Byway signs discussed above.)

The BLM would construct pullouts and develop interpretive kiosks at up to three NCA entry locations, the junction of NM 117 and CR 42, the western entrance along NM 53, and the first public land encountered along NM 53 (Sec. 16, T. 9 N., R. 10 W.) Watchable wildlife signs would be installed along CR 42, NM 53, and NM 117 to promote this recreational opportunity.

The BLM would design and build new facilities to achieve a consistent appearance throughout the Planning Area, and to blend with the surrounding landscape and local architectural styles. VRM class objectives would be set to accommodate a combination of developments, with higher levels at selected areas for user comfort and convenience, and rustic and rudimentary facilities elsewhere. Facility design and construction would conform to the assigned VRM class and be consistent with this alternative's theme of balanced management.

Interpretation would occur through one-on-one contact with visitors (public programs, guided hikes, and Ranger Station contacts); printed brochures, exhibits, interpretive media and publications at the Ranger Station; wayside exhibit panels, self-guided trails with interpretive signs, kiosks, and informational signs.

### Issue 3--Access & Transportation

To enhance natural processes, motor vehicle area designations within the Planning Area would be "limited" and "closed." Except in designated wilderness, which would increase under this alternative, vehicle travel in the majority of the Planning Area (143,270 acres or 58 percent) would be limited to designated routes as shown in Table 2-10. (The "limited" designation would include lands not

previously addressed in the RMP and those designated as open through the RMP.) Those lands designated as closed (42 percent of the Planning Area) would be wilderness. No lands would remain open or undesignated.

Under Alternative D, both road closures and route designations would be implemented. Approximately 273.1 miles of inventoried local and collector routes (75 percent) would be designated as open to the general public for motor vehicle use (refer to Map 21 and Table 2-11). Another 83.4 miles of routes would be closed.

A total of 76 miles of state highways, U.S. Forest Service, county and private roads within the Planning Area would remain open under this alternative, as would 18.4 miles of BLM arterial roads. Authorized vehicles could continue to use 6.3 miles of routes on public lands outside wilderness and 23.3 miles of routes inside wilderness.

Approximately 75 miles of local roads within the NCA and 9 miles outside the NCA but in the Planning Area would be closed to vehicle use. The BLM would reclaim these roads through natural and mechanical treatment to bring them back into resource production. Of the roads closed within the NCA, 14 miles would be within the Chain of Craters, 3.1 miles in the Spur, 15.3 miles in the Continental Divide, 9.2 miles in the Cerritos de Jaspe, 7.3 miles in the Breaks, 12 miles in Cerro Brillante, and 14 miles in the Brazo Unit. Of the roads outside the NCA, 5.4 miles within the Brazo Non-NCA Unit and 3.2 miles within the Breaks Non-NCA Unit would be closed. The closed routes would be those abandoned or not showing signs of regular or continuous use at the time of the most recent inventory (1996), duplicating other vehicle routes serving the area, causing resource damage, or serving no apparent need.

Cross-country access by nonmotorized and non-mechanical means (e.g., on horseback and by foot) would be allowed to continue in the Planning Area. However, because of terrain and vegetation conditions, it is assumed that most of this type of access would be concentrated on existing or abandoned back-country roads and the few existing trails. Mechanical transport (i.e., mountain and road bikes) would be prohibited in wilderness and restricted to designated vehicle routes. Motorized and mechanical access for traditional American Indian cultural practices would also be restricted to designated routes unless otherwise authorized.



The BLM would develop maps, brochures and signs to inform the public of the access opportunities and restrictions. Signs marking designated routes and closures would be posted and maintained. Natural and mechanical treatments would be used to control access and discourage vehicle use on closed, unauthorized vehicle routes.

Maintenance and improvement would be concentrated on the designated arterial and collector routes. Local routes would remain rough and impassable at times.

#### **Issue 4--Wilderness Management (Cebolla & West Malpais)**

If the Congress accepted the BLM's recommendation and passed appropriate legislation, the Cebolla Wilderness would be expanded to include 3,930 acres of contiguous lands. At the request of Acoma Pueblo, the BLM would also recommend to the Congress that the boundary of this wilderness be amended to exclude 160 acres of recently acquired, formerly private lands. Located in Sec. 12, T. 7 N., R. 10 W., along the boundary of the wilderness (refer to Map 28), these are aboriginal lands that are adjacent to other Acoma lands and have recurring value to their people. Any other adjustment in the amount of public lands under BLM wilderness management in either Cebolla (300 acres) or West Malpais (500 acres) would result from the acquisition of inholdings from willing sellers.

Management efforts would continue to be concentrated on signing, preventing unauthorized vehicle intrusions, patrolling and monitoring uses for compliance, and educating the public through personal contact, interpretive and educational materials. The BLM's emphasis under Alternative D

would be on providing opportunities for users to experience solitude or take part in primitive and unconfined types of recreation, without diminishing the areas' wilderness character.

The BLM would continue to patrol the areas at least once a month when accessible to the public, with more frequent patrols during spring through fall when use was greater. Patrolling would be used to deter violations, gather information about area resources and uses, and inform users about the resources and appropriate use of designated wilderness.

Users could continue to pursue primitive types of recreation that did not require the use of motor vehicles, motorized equipment or other forms of mechanical transport. The BLM would continue to encourage such use through publishing maps and brochures identifying the opportunities available within these areas.

Along with trail improvements for recreation users and resource protection, the existing recreational facilities on the wilderness perimeters would remain in place. La Ventana Natural Arch, The Narrows, and Armijo Canyon would continue to serve as primary access points to the Cebolla Wilderness. The BLM would improve facilities at Armijo Canyon and The Narrows to accommodate visitors and help direct wilderness access. The Cebolla Canyon Road (No. 2003, which splits the Cebolla Wilderness), and the Sand Canyon Road (a dead-end, cherry-stemmed road) also would provide opportunities for users to gain access to the Cebolla Wilderness. The BLM would maintain these roads more frequently to reduce erosion and improve access opportunities. From the Narrows Recreation Site, the BLM would improve markers for the Rim Trail that extends 3.5 miles into the wilderness to direct visitor use.

For the West Malpais Wilderness, the trailhead at the end of the cherry-stemmed road from CR 42 would continue to serve as the primary access point. The BLM would improve access to the trailhead and the trailhead itself to accommodate visitors and horse use. The agency would continue to identify for users a trail that follows a vehicle route leading into the Hole-in-the-Wall, a major attraction of this wilderness.

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Visitor facilities at trailheads and other entry points would be upgraded to improve access opportunities, services and information. The BLM would provide additional onsite information to better inform and educate the public. Signs would identify the boundaries, wilderness name, and some regulations governing use. Personal contact by BLM staff and volunteers would provide additional onsite information and education when users were encountered during area patrols. The BLM would also continue to supply information about the areas at the Ranger Station on NM 117 and BLM offices in Grants and Albuquerque.

Motorized vehicle access would only be allowed to non-federal inholdings and livestock grazing operations, over 5.5 miles of authorized routes in the Cebolla Wilderness and 17.8 miles in the West Malpais Wilderness. Access for livestock grazing use would continue under the conditions set in BLM RIM Plans (1990) and AMPs/CRMPs for the individual allotments overlapping these two areas. Access to inholdings would continue over routes selected by the BLM to cause the least impact to the areas' wilderness character, while serving the purposes for which the land was held or used.

Traditional American Indian cultural practices would be allowed to continue in the two areas in a manner consistent with the intent of the Wilderness Act. Motor vehicle access to the perimeter of each wilderness would be allowed, but such use inside the wilderness would be prohibited, unless the BLM has granted prior authorization after consultation and evaluation. When the BLM authorized such use of motorized vehicles by American Indians, stipulations to control impairment of wilderness character would be met. Upon request, the BLM would temporarily close the smallest practicable area for the minimum period needed to accommodate American Indian activities.

In most instances, cultural and historical resources would be subject to the forces of nature in the same manner as other wilderness resources. Stabilization and scientific studies of selected cultural resources and historical sites within the two wildernesses would continue as required to meet protection and preservation mandates. The BLM would authorize research (under Section 501 of P.L. 100-225) if it could be carried out unobtrusively so as not to degrade wilderness character.

Except for guided trips, visitor information and education programs about selected cultural and historical

sites within the wildernesses would be located outside the wilderness boundaries or dispersed at other sites. The BLM would place additional interpretive information about the Dittert Site (located within the boundaries of Cebolla Wilderness) outside the wilderness boundary, at the trailhead to the site in Armijo Canyon. Visitation of selected cultural and historical sites within the wildernesses would be encouraged through additional information provided offsite. Except for continued maintenance, monitoring and guided hikes, the BLM would provide no additional onsite interpretation.

Wildlife habitat management would continue to be guided by the BLM's Wilderness Management Policy. Hunting and trapping would be permitted under applicable state and federal laws and regulations. The BLM would continue to allow use and maintenance of the two wildlife exclosures and the water catchment, using the "minimum tool" concept.

The BLM would consider vegetation treatments on a case-by-case basis under guidance found in the BLM's Wilderness Management Policy. The agency would control fires to prevent their spread outside wilderness, the loss of human life or property. Fire suppression methods would be those that caused the minimum adverse impact on wilderness character.

The BLM would continue to seek acquisition of mineral interests and approximately 800 acres of surface inholdings from willing sellers. Priority would be given to those lands that were undeveloped or where use would pose a detrimental threat to wilderness character. The BLM would manage these lands as wilderness, when acquired.

### **Issue 5--Wilderness Suitability**

#### **Chain of Craters WSA**

The BLM would not recommend this WSA to the Congress as suitable for wilderness designation. If released by the Congress, this 18,300-acre area would be managed according to this plan. Users of this area would have opportunities for roaded natural types of recreation on 7,800 acres, semi-primitive motorized types on 5,400 acres, and semi-primitive non-motorized types on 5,100 acres.

#### **Lands Contiguous to the Cebolla Wilderness**

Under Alternative D, the BLM would recommend for wilderness designation 3,930 acres of the 10,380 acres studied under Section 202 of FLPMA. Until the Congress either designated or released these lands, the BLM would manage them under the Interim Management Policy, except as applied to minerals. The agency would manage the 6,450 acres not recommended as suitable for designation under the management prescriptions identified in this plan.

#### **Issue 6--American Indian Uses & Traditional Cultural Practices**

*P.L. 100-225 explicitly recognizes the importance of continuing American Indian traditional cultural practices in the NCA. It is not appropriate for the BLM to develop alternative management actions specifically related to these practices. However, the agency has considered such uses as an important part of formulating proposed management actions for other issues under this plan's alternatives.*

#### **Issue 7--Cultural Resources**

Under Alternative D, the BLM would allow scientific use of prehistoric cultural resources, but would place stronger emphasis on conservation for future use. This objective would reflect the principal guidance provided in P.L. 100-225.

#### **Use Allocation**

The BLM would manage the Dittert Site, the Ranger Station Reservoir, the Lobo Canyon Petro-glyphs, and outstanding homestead-era sites for public value and allocate them to public use, while taking care not to impair their information potential. As additional resource information became available, the agency could identify new

areas for public use under this alternative, but only if their information potential would not be adversely affected and appropriate American Indian consultations and NHPA compliance were done. Except as provided below, the BLM would manage historical Anglo, Hispanic and Navajo cultural resources for scientific use, with required American Indian consultations. Paleo-Indian, Archaic, and Pueblo sites would be managed for their information potential and allocated to conservation for future use. Particular properties could be reallocated to scientific use under the conditions outlined below.

#### **Compliance with the National Historic Preservation Act**

Occasionally, development projects such as range improvements or recreational facilities would be proposed within the Planning Area. Under Alternative D, the BLM would emphasize avoidance of cultural resources, rather than mitigation through data recovery. Secondary impacts such as unauthorized collection of surface artifacts would be more thoroughly studied and evaluated than is usual outside the NCA. Therefore, under this alternative the BLM would require an inventory over an area at least ¼-mile wide around proposed visitor use developments.

#### **Inventory & Baseline Condition**

The BLM would establish an overall goal of a 2½-percent Class III inventory. The agency would contact supplemental, reconnaissance-level surveys of critical areas and/or types of resources.



### **Scientific Investigation**

Because P.L. 100-225 emphasizes preserving cultural resources for long-term scientific use, the BLM would restrict archeological research that could result in physical alteration of prehistoric remains, including surface collection. The agency assumes that cultural resources within the NCA are generally less threatened than resources outside the NCA, so uses that would result in the physical alteration of cultural properties would be supported outside the NCA whenever possible. Whenever possible within the NCA, the BLM would encourage research that used existing collections or non-disturbing field techniques.

If research involving the physical alteration of prehistoric sites was proposed within the NCA, a research design would be required detailing the nature of the proposed work, its purpose, and its anticipated impact on similar properties within the NCA. Researchers would have to consider the feasibility of conducting their work using cultural resources outside the NCA. They would also have to justify physically altering the NCA's cultural properties in terms of (1) clearly existing threats to their physical integrity, or (2) the central role these particular sites played in relation to the research design.

The BLM would approve such research only if adequate funding was ensured for analysis, reporting, and curation of artifacts. The approval would follow appropriate American Indian consultation, and be granted only under the following circumstances: (1) the characteristics to be altered were threatened and would be lost without data recovery; or (2) the research could not be done using sites outside the NCA, and after the research was completed a substantial portion of the site or equivalent sites would remain in an unaltered state.

*Scientific investigations in wilderness would have to conform to the "minimum tool" standard, that is, motorized vehicles and equipment would be prohibited unless no other reasonable alternative existed. If such use was approved it would be the minimum necessary. Extractive activities such as*

*artifact collection would be allowed, but no significant impacts to visual, vegetative or other resources would be permitted.*

### **Pottery Collection**

*Although collection of prehistoric pottery is generally prohibited by ARPA, an exception can be made if it is formally determined that these items are no longer of archeological interest. Under Alternative B, the BLM would consider making such a determination on a site-by-site basis, but only if such activity was found to be a traditional cultural practice within the meaning P.L. 100-225. Individuals wishing to collect potsherds from a particular location within the NCA for traditional purposes would apply to the BLM for a special-use permit. After the location had been thoroughly documented and a reference collection of the pottery taken for permanent curation, and after consultations required under NHPA, the BLM could issue the permit for collection from the surface.*

### **Signs**

*Small inconspicuous antiquities signs would be placed carefully to avoid drawing unnecessary attention to sites, while still discouraging casual vandalism and to aid in prosecuting violators. (These signs are usually 9 inches by 12 inches in size and are placed at ground level.) Under Alternative A, signs would be placed at approximately 100 sites during the life of the plan.*

### **Access Easements & Consolidation of Ownership**

*In areas of major archeological or historical values within or adjacent to public land, the BLM would seek legal access easements across key parcels of private land. The agency would also attempt to consolidate ownership by purchase or exchange from willing sellers in these areas.*

### **Road Closure**

*The BLM would close the 2-mile, two-track road leading into the Cebolla Canyon Community.*

*Other access routes not identified for closure elsewhere in this plan could be closed if this was essential for resource protection.*

### **Formal Monitoring**

*Formal photomonitoring programs have been initiated at the Dittert Site, Oak Tree Ruin, and Arroyo Ruin. This activity involves taking a series of identical photographs at intervals of 1 to 5 years so changes in site condition can be documented systematically. Under Alternative D, photomonitoring would continue at these sites with other sites potentially incorporated into the program as well.*

### **Stabilization**

At the Dittert Site, Oak Tree Ruin, and Arroyo Ruin, the BLM would maintain the existing stabilization and erosion-control projects.

Additional stabilization and/or erosion-control projects for prehistoric sites would be undertaken only if highly valuable resources were endangered. The BLM has assessed the stabilization and repair needs of many homesteads, and would assess additional structures as needed. The agency would monitor key sites, including all those being managed for public interpretation, to ensure timely identification of natural deterioration.

*Stabilization and erosion control measures would be allowed in wilderness, but only if resources unlikely to be duplicated elsewhere were threatened, and no other reasonable alternative existed. Such activities would be subject to the "minimum tool" requirement, and would not be allowed to degrade the area's overall character.*

### **Fire Suppression**

Eight well-preserved homesteads would be singled out as high-priority fire suppression zones. Additional sites could be added to this list if significant cultural resource values were threatened.

### **Special Designations**

*The BLM would place no special priority on nominating properties in the Planning Area to the National Register of Historic Places. Possibly, four or five properties would be nominated during the life of the plan, perhaps as part of regional-scale thematic nominations (e.g. Chacoan Outliers, major*

*Pueblo II sites, great kivas, or homestead-era schoolhouses). The Ditter Site could be added to the World Heritage List as part of the Chaco Culture listing.*

The BLM would conduct frequent interpretive hikes that included visits to cultural resource sites. In addition to completing offsite interpretive measures such as brochures, exhibits, and other media, under Alternative D the BLM would encourage visitation at the Dittert Site, Lobo Canyon Petroglyphs, and Ranger Station Reservoir. The agency would also develop public interpretation for outstanding homestead-era sites.

During the life of this plan, no onsite interpretive development would occur at the Pinole Site, The Citadel, Cebolla Canyon Community, or Aldridge Petroglyphs, but the BLM would manage these sites to protect their potential for public use. If unsolicited visitation warranted, the BLM would install visitor registration boxes at those sites.

### **Issue 8--Wildlife Habitat**

In addition to maintaining existing habitats *in the proper quality and quantity necessary to support the existing population in the area*, the BLM would increase efforts to improve the quality and quantity of wildlife habitats within the Planning Area. The agency would undertake up to eight of the following new wildlife habitat improvement projects, generally in areas where limiting factors occurred (e.g., lack of water, appropriate habitat). (Refer to Appendix P for descriptions of other typical projects that could be used, e.g., water developments, vegetative manipulation, fences.) Sikes Act funding would be used for these projects wherever appropriate.

### **Prescribed Fires & Wildland Fires Under Prescription**

These two types of fire would be used throughout the Planning Area to maintain and/or enhance wildlife habitat and support the variety of wildlife populations. These prescribed burns would *generally* range from 50 to 1,000 acres in size, with an average of 500 acres each. *However, under the fire management plan larger fires could be called*

*for to provide for greater vegetative resource enhancement.*

#### **Prairie-Dog Colony Enhancement Area**

As identified in Alternative B, this project would use the south half of the North Pasture and the Head Pasture of the El Malpais Allotment (Breaks Unit) as a prairie-dog colony enhancement area of approximately 1,000 acres. This would help support two local, special-status species (the burrowing owl and mountain plover), and if the colony expanded to 200 acres in size, it would also be a potential release site for the highly endangered black-footed ferret.

#### **Wildlife Water Catchments**

As identified in Alternative B, the BLM would install three wildlife water catchments within the Cerro Brillante Unit (T. 6 N., R. 12 W., Sec. 31, SE¼; Sec. 33, NE¼; Sec. 35, NE¼). These would be funded through the Sikes Act Program.

#### **Riparian Fencing**

As identified in Alternative B, the BLM would fence approximately 1½ miles of perennial stream (T. 5 N., R. 10 W., Secs. 2 and 3) along Cebolla Canyon below Cebolla Spring to protect the area. This is one of the few perennial stream sections that occur within the Planning Area.

#### **Reintroductions**

As identified in Alternative A, the BLM would work with the NMDG&F and the FWS to conduct feasibility evaluations for reintroducing native, special-status wildlife and/or plant species within the Planning Area.

#### **Issue 9--Vegetation**

Under Alternative D, the BLM would use a full range of management techniques (forest and woodland, livestock grazing, riparian, fire and watershed) to achieve the vegetative objectives.

The agency would allow piñon-juniper thinning to meet woodland and ponderosa pine

objectives. Sites selected for such rehabilitation would be those with the highest potential for success; i.e., having the best soils, elevations, slopes and exposures. A variety of tree sizes and ages would be left. The ground cover from trees left after thinning would be between 10 and 40 percent.

Changes in livestock grazing management would be made to ensure accomplishment of vegetative objectives. AMPs/CRMPs including such objectives would continue to be developed. The Cerro Brillante CRMP *has been completed*. Plans for the Los Cerros, Techado Mesa, and Los Pilares Allotments *have been* amended to include vegetative objectives and requirements for minimum rest periods from livestock grazing. The minimum livestock grazing rest period would be from April 15 to October 15 for at least one pasture or area per allotment each year. New range improvements would be developed if needed to provide this rest. AMPs/CRMPs would contain objectives and actions for forests and woodlands, wildlife, riparian, fire and watershed management. If monitoring studies indicated the need, existing plans could be revised, new plans developed, and/or livestock grazing use could be reduced.

The BLM *has fenced* spring areas used by livestock to exclude them, and would develop livestock and wildlife waters elsewhere. Springs not used by livestock could be developed for wildlife use. The BLM would plant willows and other native riparian species as needed. To allow for fully functioning riparian condition, the BLM would remove exotic species such as saltcedar and Russian olive using mechanical, biological or chemical treatments.

Prescribed fires and wildland fires under prescription would be used to manage fuel loads, protect private property and accomplish vegetative objectives. Fires ranging in size from 50 to 1,000 acres each would be used each year, including reducing piñon-juniper in potential ponderosa pine habitat. If needed to ensure reestablishment on some locations, the BLM would plant ponderosa seedlings. In areas proposed for prescribed fires, the agency would plan pre- and post-burn rest from grazing in coordination with the affected allottee(s).

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For watershed management, the BLM would consider building small structures to spread or divert water. Control of noxious weeds (e.g., knapweeds, bindweed, leafy spurge, thistles) would be allowed by mechanical, chemical or biological means. Site-specific EAs would be completed before any structures were built or noxious weeds treated. To improve watershed conditions and assist in accomplishing vegetative objectives, the BLM would provide for the use of such forms of vegetation treatment in AMPs/CRMPs. Treatments would be considered in areas where livestock rest and prescribed fires were not effective; e.g., areas where junipers too small for fuelwood had invaded (in meadowlike openings, grasslands, or savannas), or areas where fire-tolerant species such as rubber rabbitbrush had increased or invaded (e.g., in valley bottoms, drainage, meadowlike openings).

### **Issue 10--Boundary & Land Tenure Adjustments**

*The Planning Area includes 24,200 acres outside the NCA boundary (non-NCA units). A total of 17,100 acres outside the NCA boundary but contiguous to it would also be considered as additions to the NCA (refer to Table 1-1 in Chapter 1 and Map 32). Under Alternative D, the BLM would recommend that the Congress amend the NCA boundary to accomplish the following.*

- Exclude 960 acres of Acoma Pueblo lands currently within the NCA from the Spur Unit and Cebolla Wilderness. This would include several parcels totalling 800 acres between NM 117 and the National Monument boundary, and 160 acres within the Cebolla Wilderness (T. 7 N., R. 10 W., Sec. 12) recently acquired by Acoma Pueblo. This latter parcel, which is adjacent to other Acoma lands, consists of aboriginal lands that have recurring value to the Acoma people.*
- Expand the NCA to include 41,300 acres in the Breaks Non-NCA, Brazo Non-NCA, Continental Divide-AFO, Tank Canyon-SFO, and Tech-ado Mesa-SFO Units (38,900 acres federal and 2,400 acres private). (Refer to Chapter 1 for a more detailed description of each parcel.) These parcels are within Cibola, Catron & Socorro Counties, and are*

*contiguous to and a logical extension of the NCA. The BLM would acquire inholdings if owners were willing, with exchange being the preferred acquisition method.*

- The BLM would add two acquisition recommendations: (1) a treadway for the CDNST by easement, exchange or sale in the Cerro Brillante-AFO Unit, if owners were willing; and (2) a 160-acre parcel that includes an early historical ruin with interpretive potential (portions of T. 5 N., R. 11 W., Sec. 3 and T. 6 N., R. 11 W., Sec. 34). Other acquisition recommendations in the Land Protection Plan (USDI, BLM 1989) would remain in effect.*
- Modify the boundary of the Cebolla Wilderness to include portions of newly acquired lands contiguous to the current wilderness boundary (an increase of 4,090 acres). This change, less the 160 acres of Acoma lands excluded, would result in a net addition of 3,930 acres to the Cebolla Wilderness (refer to Map 28).*

*Pending decisions from the Congress, the BLM would manage the Breaks and Brazo Non-NCA Units in accordance with provisions of this plan. The Continental Divide-AFO Unit would be managed under the Rio Puerco RMP. The Techado Mesa-SFO and Tank Canyon-SFO Units would continue to be managed under the Socorro RMP. The BLM would issue a temporary withdrawal from the public land and minerals laws for all public lands within the non-NCA units.*

### **ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

#### **Eliminate Grazing from the Planning Area**

Some individuals have suggested that grazing be eliminated completely from the NCA. However, this measure is not consistent with P.L. 100-225, which specifies that within the NCA, livestock grazing *shall be* permitted to continue, including in wilderness.

Resource conditions within the Planning Area do not



warrant area-wide prohibition of livestock grazing. The Rio Puerco and Socorro RMPs contain the management prescriptions needed to meet resource management objectives, including the vegetative objectives established in this plan.

#### **Designate the Chain of Craters Area as an ACEC**

The option to designate Areas of Critical Environmental Concern (ACECs) was established in FLPMA for those areas where special management is needed to protect and prevent irreparable damage to an important value, resource, system or process, or to protect human life and safety from natural hazards. For the Chain of Craters area, NCA designation, regulations, and existing management policies are sufficient to protect values. The NCA has been withdrawn from mineral development and commercial woodcutting because of the potential for irreparable damage to natural and cultural values. Therefore, the BLM is not considering the designation of the Chain of Craters as an ACEC.

#### **Designate the Chain of Craters Area as an American Indian Wilderness**

In P.L. 100-225, the Congress established the Chain of Craters as a WSA and required the BLM to review its suitability for designation as wilderness. As part of this El Malpais Plan, the BLM is recommending whether the area should or should not be managed as wilderness.

Several American Indian groups use El Malpais and the Chain of Craters for traditional cultural practices. The Acomas and Ramah Navajos have taken the strongest interest in how the Planning Area is managed; other tribes such as the Zuni, Laguna, Alamo Navajo, Cañoncito Navajo and Hopi may also have concerns.

At issue is the need for motor vehicle access to sacred places, privacy for traditional practices, as well as continued access to areas used for hunting, piñon nut picking, and gathering of other traditional plants and minerals. The frequency of need for access varies by Indian group.

Ramah and Acoma have requested unrestricted vehicle access to the Chain of Craters. This is contrary to uses allowable under the Wilderness Act. Unless specifically allowed in the act or an individual wilderness designation law, temporary or permanent roads and the use of

motorized equipment, motor vehicles or other forms of mechanical transport are prohibited under Section 4(c). Designating the Chain of Craters as an American Indian Wilderness with unrestricted motor vehicle access as an alternative is not considered in this plan.

The Chain of Craters is evaluated in this plan as to its suitability for inclusion in the National Wilderness Preservation System (NWPS). Only the Congress can designate this area as wilderness or release it from wilderness review. Should the Congress ultimately designate the area, the BLM will make them aware of requests by local American Indians to use motor vehicles for access to these lands for traditional cultural practices. Such use would require special provisions in the designating legislation, or the area would have to be managed under the Wilderness Act, BLM policy and regulation.

#### **Allow Unrestricted Collection of Prehistoric Pottery**

As a traditional activity that should be allowed in the Planning Area, Acoma Pueblo has identified the collection of prehistoric pottery for use as temper in the manufacture of contemporary pottery. This practice dates back to at least A.D. 1000. For Acoma people, visiting ancestral places and gathering objects made by their forebears is an important means of maintaining continuity and connection with the past. As supplies of prehistoric pottery on Acoma lands are depleted, the Planning Area could become important for this activity.

Frequently, virtually all identifiable sherds collected for this purpose are removed from archeological sites; few other natural or cultural processes in the Planning Area pose a greater danger to the scientific potential of the sites. Pottery is the principal means of dating prehistoric sites and identifying their local and external connections. Scientific excavations are increasingly expensive, and in this area they are often strongly opposed by American Indians. For these reasons and under all alternatives, surface archeological investigations would be the principal means of scientific study during the life of this plan.

P.L. 100-225 directs the BLM to allow American Indians access to the NCA for traditional cultural practices. For this reason, the agency has given serious consideration to allowing unrestricted collection of pottery from the surface of prehistoric sites, either within the NCA as a

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whole or within particular portions.

However, collection of pottery is also explicitly prohibited by ARPA. P.L. 100-225 places a great deal of emphasis on the enforcement of ARPA, and the history of the El Malpais legislation makes it clear that protection of scientific values is one of the principal reasons for establishment of the NCA. Interpreting "access" to mean

unrestricted collection could not be reconciled with provisions of ARPA or with the intent of P.L. 100-225. Therefore, unrestricted collection of pottery would not be allowed under any of the plan alternatives.

